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CLINICAL SKETCHES

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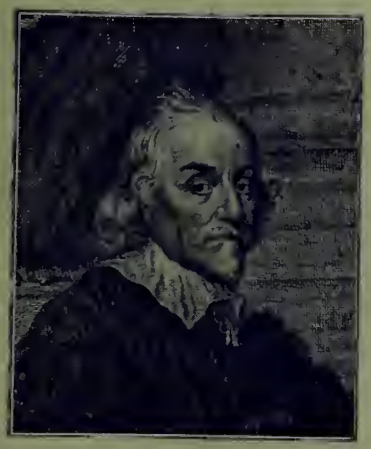
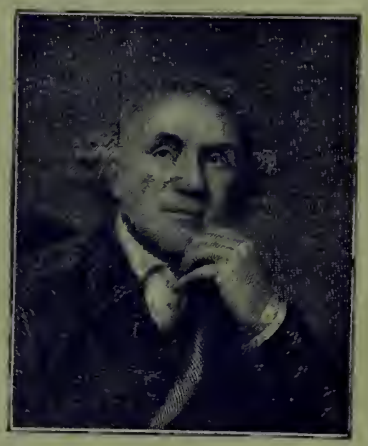


WILLIAM HARVEY.
Born 1578. Died 1657



JOHN HUNTER.
Born 1728. Died 1793.

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JANUARY 1895.

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CLINICAL SKETCHES

JANUARY 1895

A New Departure

THE PURPOSE of this Journal is to supply an illustrated record of Medicine and Surgery in such a manner that the *practical bearing* of new discoveries and interesting cases may be imparted in as brief and plain a manner as will be consistent with usefulness to the practitioner.

One feature of 'CLINICAL SKETCHES' will be the ILLUSTRATIONS, in the preparation of which every endeavour will be made to represent the subjects plainly and practically.

As regards the letterpress the following objects will be aimed at:—

(1) The selection of subjects of real practical interest to the General Practitioner and the practising Physician and Surgeon.

(2) Brevity and simplicity of description.

(3) Association, as close as possible, of the text with the illustrations.

(4) Plainness of type, so that the Journal can be read with facility.

It is intended to discuss or record many subjects which, although not usually included in Medical Literature, may be specially interesting to medical men.

The contents will chiefly consist of original Clinical Lectures or Papers, Short Notes of Cases, Abstracts and Résumés of Current Medical Literature, Clinical Notes and Descriptions of New Apparatus.

Reviews of New Books and New Editions will be given, and they will be rather analytical than critical.

There will be a department for the practitioner in the country, dealing with veterinary subjects and other allied matters in which he may be interested.

It is further proposed to give notes and descriptions of health and holiday resorts.

The conduct of the Journal will be entirely in the hands of members of the Medical Profession who have had considerable experience in literary matters as well as in the production of medical illustrations.

It is hoped that the practical character of this publication will ensure its success, and that its pages will be read even by those who have not much time to devote to literary matters.

NOTE BY THE EDITOR

The publication of 'Clinical Sketches' has been undertaken with the view of supplying what has long seemed to me to be a distinct 'want' among medical men.

That a large majority of the busy members of our profession are too much occupied to read through the mass of medical literature which is put before them every week is very generally recognised as a fact. The consequence is that although medical journals are subscribed to pretty freely throughout the country, yet they are often thrown aside unread, or only casually perused, simply because the reader does not possess the time, nor has he often the inclination, to read through long articles in order to obtain the information which he wants—information which may be described as the *practical outcome of the medical advances of the day.*

Take, for instance, the subject of the Antitoxin treatment of diphtheria. For those who have the leisure it is very interesting to read the full history of the subject, but there are hundreds of us who would rather have this information recorded in the most concentrated form, with a plain description of how the remedy should be used and where the preparation can be obtained.

Then, again, papers are read or written by men of eminent reputation, and published in one or other of the various excellently conducted medical periodicals of the day, which are undeniably good reading, and which teem with valuable information; but how few of us can summon up the effort, after a hard day's work, to wade through such matter! At the same time, we all want to learn the practical points of these writings.

With such ideas in view I shall endeavour to conduct this Journal to the best of my ability and in accordance with the purposes detailed under the preceding heading, A New Departure.

With regard to the Illustrations, these are meant to speak for themselves, but I wish to refer to my intention to introduce a full-sized plate of some medical celebrity, or other subject of interest, in each issue. In this first number I give an engraving of William Harvey, produced in facsimile from a well-known portrait.

My ambition is to attain success by supplying what is interesting without being tedious; by sketching, in a literary as well as in an artistic sense, the principal points and ideas contained in the work which is constantly emanating from the many laborious toilers of the day in medical science and art.

The original articles will be short, and, as far as possible, illustrated; the abstracts and the *résumés* of papers already published will be prepared with the object of describing the points which may be useful to the working medical man.

Original Papers

AN OVARIAN DERMOID SIMULATING A RENAL TUMOUR

By HENRY MORRIS, F.R.C.S., M.A. Lond.
Surgeon to the Middlesex Hospital.

An unmarried lady, age 47, had from time to time for a period of six or seven years suffered from attacks of aching pain in the left side of the abdomen. These attacks lasted for several days, and were associated with increased frequency of micturition, the urine containing a large quantity of urates and uric acid.

The attacks had been attributed to gravel or renal calculous formations (gouty ?).

She was a fine well-made woman of robust but somewhat flabby appearance.

On the morning of September 29, 1891, having previously been in good health, she was seized suddenly with pain in the left lumbar region and left half of the abdomen. The pain got rapidly worse, and she became so collapsed that for some hours life was almost despaired of. The doctor who was summoned attributed the seizure to renal colic, but on examining the abdomen he discovered a tumour in the hypogastric region.

When the colic had subsided, a rounded elastic tumour in the left loin and iliac region, reaching down to the left iliac fossa, was also detected.

On the second day after the commencement of this attack, the latter tumour was tapped in the iliac region, and many ounces of fluid were withdrawn. This was followed by the disappearance of the swelling in the loin. The fluid was found to contain neutral fats, irregular cholesterin crystals, and epithelial *débris.*

After the tapping steady improvement followed.

Twelve days later (October 13) the patient was able to travel home to London (140 miles).

On October 14 an examination under an anæsthetic disclosed a firm, hard, and almost fixed tumour in the left lumbar region about the size of a cocoa-nut. It gave rise to a dull note on percussion in the loin, but there was resonance over its front surface.

Below this tumour, but distinct from it, was another tumour, hard, firm, and almost immovable, in the hypogastric region; it seemed about the size of a small melon. By both vaginal and rectal examination this lower tumour could be felt blocking the pelvis; it was very slightly movable bimanually. The os uteri was natural, the cervix shortened, and the body of the uterus was enlarged, and moved only with the tumour.

The urine was very acid, highly charged with urates, but contained neither pus, blood, nor albumen, and was rather under the normal in quantity. There was neither fever, pain, nor marked tenderness, but a sense of weight and dragging when she moved or attempted to stand. The catamenia were, and always had been, regular, though frequently painful during the first forty-eight hours or more.

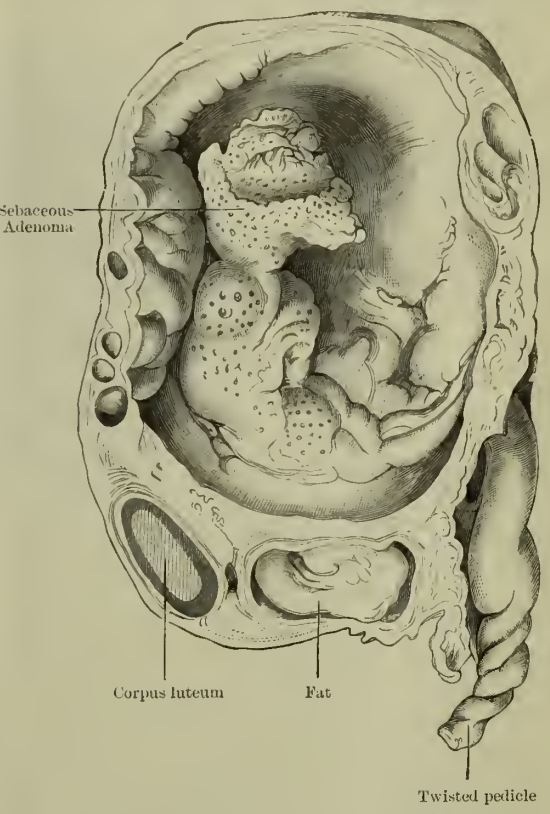
A week later she was able to take carriage exercise. The urine became quite clear whilst taking Fachingen alkali water, but the abdominal tumours remained unchanged.

Operation.—On November 16, 1891, laparotomy was performed. The uterus contained in its substance a large myoma, which blocked up the pelvis, and could not be raised far out of it. In the left loin was a cyst of the left ovary with an elongated pedicle tightly twisted upon itself, being two and a half times rotated on its axis. The tumour, engorged with blood, was fixed in the left loin by adhesions to the lumbar parietes; and over the front and inner side of the tumour a coil of small intestines and part of the omentum were adherent by recent adhesions of a vividly crimson colour.

A fringe of the omentum was ligatured by four catgut ligatures and removed, and the tumour was then freed of its parietal and intestinal adhesions, and removed after ligaturing the pedicle near the uterus. The right ovary contained several small cysts, and was, with its Fallopian tube, also ligatured and removed. The uterine myoma was left untouched; and after thoroughly cleansing the peritoneal cavity, the wound was closed.

The dermoid removed had thick walls containing cysts, several of which were occupied by fat of the consistence of cocoa-butter. There was also a large corpus luteum, indistinguishable from the so-called corpus luteum of pregnancy.

The main cavity contained **sebaceous material** intermixed with a quantity of short hairs, none of which were at the time of examination attached to the cyst wall. Hanging into the cyst cavity, and attached by a thick pedicle, was a soft, skin-covered tumour, which, on section under the microscope, exhibited little else than clusters of very large sebaceous glands.



The Ovarian Dermoid with a Sebaceous Adenoma. It contained hair, but its walls were bald.

This figure was used by Mr. Bland Sutton in his work on tumours.

Subsequent progress.—The wound healed, and the temperature was normal for eleven days—namely, until November 27, when it began to fluctuate daily between normal and 100·2°. On December 2 the temperature rose to 100·8°, and on December 3 to 101·2° in the evening.

On December 6 much abdominal pain was complained of, and there were great restlessness, much mental excitement, increasing size in the uterine tumour, tympanites, and irregular action of the bowels, which were on some days constipated and on others relaxed, with tenesmus.

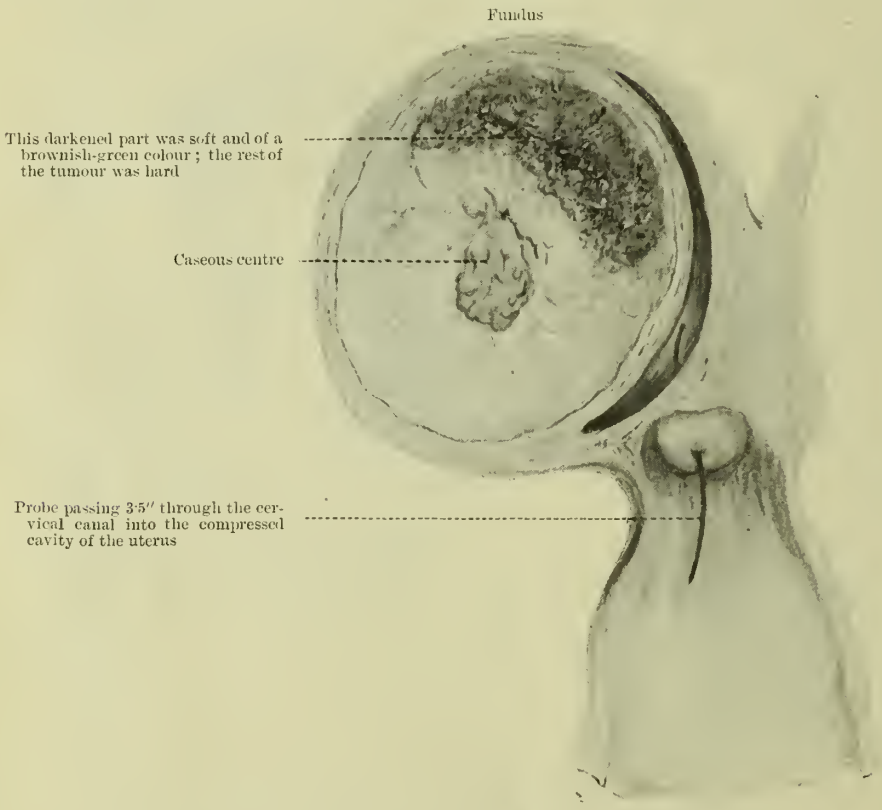
During the night of December 14 there was a free discharge of very offensive pus per rectum. In spite of the discharge there was much œdema and fulness felt per rectum and per vaginam. On December 21 there was increasing size of the uterine tumour, and the upper part of the abdominal scar had become red and œdematous.

On December 24, the abscess in the line of the cicatrix broke, discharging a quantity of very offensive pus, leaving a hole from which a subparietal track took a course downwards towards the symphysis pubis.

line in the upper third is a small patch of iodoform corresponding to the sinus in the abdominal parietes. On the left side of the fundus is a small subperitoneal myoma about the size of a bean. It is in close proximity to the uterine end of the left Fallopian tube.

A probe passes 3·5″ into the cervical canal. The enlargement is due to a rounded myoma in the anterior wall of the uterus.

The uterine wall is stretched over the tumour, but there is no sloughing of the wall of the uterus. The myoma is, in the main, firm, but in its posterior



Section of the Myoma and of the Uterus and Vagina.

For several days previously the patient had been delirious, pulse 130, respirations 48, irregularity of bowels, and sometimes unconscious micturition.

On December 31, she became semi-comatose, with pulse 130, respirations 48, and temperature 102°. The coma deepened until midnight of January 6, when she died.

For the last two days before death the temperature varied from 101·2° to 105°.

Post-mortem by Dr. Voelcker.—The uterus is enlarged and almost globular in form. It measures 4·75″ × 4·0″. It feels firm. On the anterior and upper surfaces are numerous adhesions, and in the middle portion is brownish green in colour, and soft. About its centre is a pale yellow islet the size of a threepenny piece, which is evidently a caseous centre of old date. No earthy material can be felt in this patch.

Tubes.—The left tube is ligatured with silk. The stump seems quite healthy. The intestine is adherent at this spot, but there is no perforation.

Right tube.—No ligature can be made out; but, in a position corresponding to the ligature on the left side (*i.e.* 1·5″ from uterus), it is adherent to the sheath of the right psoas muscle, and thus to the abscess in the sheath.

The retro-uterine pouch is an abscess cavity,

ragged and sealed off by adhesions above. There are two perforations into the rectum, each rather over 0·5″ long, and situated 0·75″ from each other. These perforations lead from the abscess cavity in Douglas's pouch into the cavity of the rectum. There are no signs of laceration of the muscles of the rectum.

Remarks.—This case not only teaches us how an ovarian dermoid may simulate a renal tumour, but is very interesting as showing an occasional complication of a uterine myoma. The great length of the pedicle allowed of the dermoid rising into the ileo-costal region, and the position of the intestine in front of the cyst gave it still further the character of a hydronephrosis, whilst the presence of the second tumour in the hypogastrium afforded a reasonable explanation of renal distension by mechanical pressure on the ureter.

The old caseous patch in the centre of the myoma is evidence of a tendency to undergo degenerative changes—possibly induced by the increasing vascular demands of the growing dermoid and the consequently diminished vascular supply of the myoma. It is open to question whether the sloughing process would have occurred in the tumour had the right ovary not required removal. It would be interesting to know whether, in the practice of others, double oophorectomy for bleeding fibro-myoma has been followed by necrosis of the tumour.

A CASE OF EXTRA-UTERINE GESTATION, WITH THE HISTORY OF TWO SUBSEQUENT INTRA-UTERINE PREGNANCIES

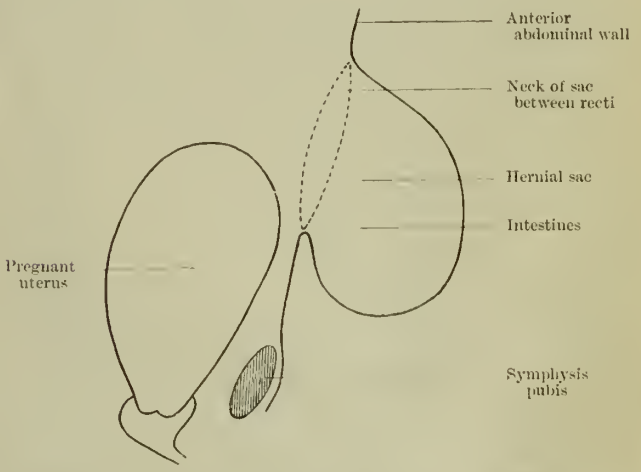
By JOHN PHILLIPS, M.A., M.D., F.R.C.P.

Assistant Obstetric Physician, King's Coll. Hospital, Physician British Lying-in Hospital, Examiner in Midwifery, Univ. of Cam.

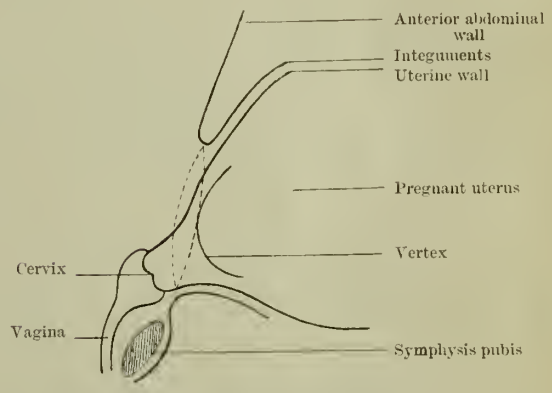
Mrs. S. M., aged 26, a secundipara, was first seen in 1891 in consequence of menorrhagia. She had missed a period, and considered herself pregnant. Hæmorrhage began seven weeks after her last menstruation, and was copious. On examination the uterus was enlarged, and there was a mobile, tender swelling, the size of an unshelled walnut, in the left and posterior half of the pelvis. The hæmorrhage continued in spite of all treatment, and the extra-uterine swelling appeared to be increasing.

The abdomen was opened January 2, 1892. Four large clots and nearly a pint of fluid blood were found in the lower portion of the peritoneal cavity, and the left Fallopian tube was considerably distended. The ovary and tube were removed and the abdomen closed. On opening the tube a hardish blood clot was found, which, on examination microscopically, showed undoubted signs of a tubal gestation. The patient made a good recovery.

September 13, 1892. She has reported herself regularly, and to-day says that she is pregnant about six months. This was found on examination to be



Sagittal Section of Parts at 5 to 6 Months Pregnancy
(Semi-diagrammatic)



Sagittal Section of Parts at Term
(Semi-diagrammatic)
From sketches made at time by author

the case, and there was a hernia at the cicatrix, which, on straining, attained the size of a cocoa-nut. She was ordered a belt, and told to attend regularly for observation. This she failed to do, and I did not see her again until she was admitted into the British Lying-in Hospital on January 6, 1893—apparently in labour. She appeared very ill; her temperature being 104° F. and pulse 120. Pain in lower abdomen constant.

On examination the uterine fundus was found

protruding from between the recti muscles, and lying halfway to her knees. The os uteri was slightly dilated and felt, with difficulty, high up and presenting directly backwards. The uterus could not be replaced, although a prolonged attempt was made with that object. It was therefore supported by an abdominal band. The pains continued up to January 11. The os uteri gradually dilated. The forceps was applied, and a living female child delivered.

Reduction of the uterus through the recti was now fairly easy. The patient made a good recovery.

		Temp.	Pulse
January	6, Morning	104°	120
	Evening	104⅖°	120
,,	7, Morning	99⅖°	96
	Evening	99¼°	100
,,	8, Morning	99⅕°	99
	Evening	102°	106
,,	9, Morning	99⅕°	90
	Evening	99⅕°	104
,,	10, Morning	97⅖°	86
	Evening	102⅖°	104
	Cervix size of a half-crown		
,,	11, Morning	102°	98
	Labour. Forceps		
	Evening	102°	98

On September 23, 1894, she was confined again at full term. No complication arose at this labour. During the whole of her pregnancy she was carefully watched, and wore an abdominal belt throughout. She is now well, with the exception of the hernia at the site of the abdominal cicatrix, which she declines to have treated by any plastic measures.

A DIAGNOSTIC PROBLEM

By ANDERSON CRITCHETT, M.A. Cantab.
Senior Ophthalmic Surgeon to St. Mary's Hospital.

Amongst the many anxious moments in the life of an ophthalmic surgeon there are none that bring a greater weight of responsibility than when the destruction or possible salvation of a seeing organ rests on his decision, and the evidence is of a conflicting character. An instance in point has recently occurred in my practice, and I think it is of sufficient interest to be placed on record.

H. H., aged 15, was sent to me in November 1894 by Dr. Digby, of Ticehurst, and I obtained the following history.

About a week before I saw him, the boy had found a heap of stones and a hammer, on a road adjacent to his home, and the temptation to try his hand at an occupation which offers special attractions to youth, but is the bane of old age, proved too strong to be resisted. Before many blows had been struck he received a wound in his right eye from a fragment of flint, and when I saw the injured organ I noted the following conditions. There was a small incised wound of the cornea slightly to the inner side, the anterior capsule had been ruptured, some of the soft opaque lens substance had escaped into the anterior chamber, and there was a lozenge-shaped gap in the iris up to the pupillary margin involving the whole of the circular and a few of the longitudinal fibres. I noticed one anterior synechia and two posterior synechiæ, slight iritis, and marked ciliary injection.

The foregoing facts were sufficient to show that the eye had undergone very serious and extensive injury, but the following points of evidence pleaded strongly in a hopeful direction.

The tension of the globe remained normal, there was an entire absence of pain, and the projection

over the whole field of vision seemed perfect. The crucial question therefore arose whether I should endeavour to remove the lens in the hope that useful sight might result from my operation, or whether a foreign body had penetrated the globe, in which case the retention of the latter would in all probability involve the destruction of the sound eye from sympathetic ophthalmitis.

I decided on the major operation for these reasons. If the eye had been struck by a large and heavy piece of flint, the corneal wound would have been less cleanly cut, and the weight of the mass, even if it had penetrated the iris, would probably have driven the latter delicate structure before it instead of incising it.

I also noticed that the wound in the iris almost exactly corresponded in size and direction with that in the cornea. I therefore came to the conclusion that a small sharp fragment of flint had been driven into the eye with considerable force and velocity, and that I should best consult the welfare of my patient by enucleating the globe.

The operation was performed at St. Mary's

Hospital, under an anæsthetic, on November 23, and on opening the excised eyeball by an equatorial incision in the anterior half, an irregular splinter of flint was visible, about 2 mm. in its widest diameter, embedded in the pars non-plicata of the ciliary body just anterior to the ora serrata, situated 45° down and out, and forming with the corneal wound an angle of 120°. Its posterior margin was free in a clear vitreous, and there were no signs of turbidity from inflammation.

I confess that I felt relieved when I saw the offending silicious fragment *in situ*, for the case had involved a very responsible decision, and had I not been fortified by the diagnostic data I have already mentioned I should have hesitated to remove the eye.

The doubts which this case engendered lead me to suggest that it is a matter for some regret that the talented author of 'Sherlock Holmes' should have abandoned ophthalmology for literature, since, in cases such as the foregoing, his power of weighing probabilities and analysing evidence might have proved of inestimable value.

DIPHTHERIA AND ITS BACTERIOLOGICAL DIAGNOSIS

By R. T. HEWLETT, M.D., M.R.C.P.

Assistant Bacteriologist, British Institute of Preventive Medicine, London.

The importance of a correct and early diagnosis of diphtheria cannot be over-estimated, both for the adoption of measures to prevent spread of the disease, and with a view to the early use of antitoxin and the estimation of the value of this remedy. As to the naked-eye appearances of the membrane in diphtheria, it is now admitted that non-diphtheritic membranous affections of the fauces and air-passages sometimes occur, the clinical appearances of which are indistinguishable from diphtheria, though they usually run a much milder course. The differentiation of true from pseudo-diphtheria is therefore of the greatest importance.

Recent observations, especially in America, have shown that diphtheria can be diagnosed most certainly by the discovery of the Klebs-Löffler bacillus by means of bacteriological methods. In 1883 and 1884 Klebs and Löffler isolated and described a particular rod-shaped organism in cases of diphtheria. Subsequent experiment has confirmed the correctness of their observations, and it is now recognised that diphtheria is a specific disease dependent upon infection with the Klebs-Löffler bacillus. This organism is slightly larger than the tubercle bacillus; it occurs in large numbers in the membrane, either alone or associated with other organisms, micrococci (spherical forms) and streptococci (chain-forming micrococci). It can be readily cultivated and grows freely on blood-serum, agar-agar, and gelatine, and in broth. The form of the Klebs-Löffler bacillus is that of a slender rod with

The Klebs-Löffler Bacillus. Cover-glass Preparation from a Cultivation, stained with Löffler's Methylene Blue. × 1,500 (Swift's $\frac{1}{12}$″ o.i.).

rounded ends usually somewhat curved, a little longer than the tubercle bacillus, and about twice as thick. In stained preparations some are coloured uniformly, while in others the protoplasm breaks up and stains irregularly, giving rise to a beaded appearance. The rods frequently show irregularities in form; one end may become swollen or club-shaped, like a lemonade bottle, or the centre of the rod may be enlarged so that it becomes spindle-shaped.

Preliminary method of examination of the membrane.—In a small proportion of cases the diagnosis of diphtheria can be confirmed by the discovery of this organism in the membrane by the following method:—

A particle of the membrane is detached from the throat, teased up in a droplet of water on a cover-glass, and the 'teasings' spread over the cover-glass and allowed to dry. The cover-glass is then passed pretty rapidly three times through the flame of a spirit-lamp or Bunsen burner, in order to 'fix' it. The film is stained for ten minutes with a drop or two of Löffler's solution of methylene blue,[1] then washed in water, dried and mounted on a slide, film side downwards, in a drop of Canada balsam. On examining the preparation under the microscope with a one-twelfth-inch oil immersion objective, the characteristic Klebs-Löffler bacillus may be met with. It is only in a small proportion of cases that this method is applicable, for failure to find the bacilli is of little or

[1] Löffler's Methylene Blue Solution:—Aqueous solution of caustic potash (1 in 10,000), 100 parts; concentrated alcoholic solution of methylene blue, 30 parts. Mix.

no value, and usually the more elaborate method of *cultivation* has to be adopted.

Cultivations.—In order to make cultivations, tubes of sterilised blood-serum have to be employed; agar and gelatine are unsuitable. The preparation of the tubes of sterilised blood-serum is probably too complicated for the busy practitioner to undertake, and fortunately these tubes can now be obtained ready for use from several firms. A wool swab is prepared by twisting a little wool round the end of a piece of stiff wire (a straightened hairpin will do very well), and is sterilised by passing it several times rapidly through a flame, so as to singe but not to char it. This swab is rubbed gently over the patch of membrane in the throat or fauces &c. The inoculated swab is rubbed two or three times over the coagulated serum of a blood-serum tube, care being taken not to break up the surface of the serum. This operation should be done expeditiously, the wool plug with which the tube is stoppered being meanwhile held in the fingers (and not laid on the table), and replaced in the tube as soon as the swab has been withdrawn. The latter should be destroyed by burning.

The inoculated tube must be kept in a warm place or chamber (incubator) at a temperature of 90–98° F. for not less than twelve hours.

If the surface of the blood-serum be then carefully scrutinised, numerous whitish or cream-coloured raised spots will be observed. These are growths or 'colonies,' and vary in size from mere points to a large pin's head. A microscopical examination of these growths is necessary to establish the diagnosis. A long needle mounted in a slender wooden handle, or, better still, a platinum needle—two inches of platinum wire sealed into a glass rod—is sterilised in the spirit lamp or Bunsen flame, and two or three of the colonies on the surface of the blood-serum are picked up on the end of the needle, rubbed up with a droplet of water on a cover-glass, the emulsion spread over the cover-glass, dried, fixed, stained, mounted, and examined, as in the case of the membrane. It is necessary for the microscopical examinations to employ a one-twelfth oil immersion objective. The Klebs-Löffler bacillus will be readily recognised if present. If none be found, other preparations from different portions of the growth on the serum must be made. Provided certain conditions have been complied with, the diagnosis of diphtheria is confirmed or not by the presence or absence of the Klebs-Löffler bacillus in the preparations.

These conditions are that the cultivations should have been made early in the case while the membrane is forming; that no antiseptic should have been applied; and that sufficient skill should have been attained to make a satisfactory cultivation. In some cases the Klebs-Löffler bacillus is present in pure culture, at other times mixed with other micro-organisms. When the medical man has no 'culture outfit' with him and cannot procure it at short notice, the following simple method has been suggested. An egg, which is generally procurable, is boiled hard for eight to ten minutes; the shell is then chipped away from one end with a knitting-needle or penknife, the point of which has been sterilised in a gas or candle flame. The exposed white is then inoculated with a swab (prepared as previously described, or even with a knitting-needle or straightened hairpin sterilised in a flame) which has been rubbed over the patch of membrane. The egg is then placed, inoculated end down, in a wineglass or egg-cup (sterilised in the flame), care being taken that the exposed white does not come in contact with the glass or egg-cup. The preparation must be kept in a warm place, colonies develop, and the further investigation is carried on exactly as with a serum tube. This method sounds feasible, but I have not yet had an opportunity of trying it, though I have found by experiment that the Klebs-Löffler bacillus grows well on the egg prepared in this manner. Other information may also be gleaned from cultivations. True diphtheria where the Klebs-Löffler bacillus is present has a mortality of from 25 per cent. to 70 per cent., and when streptococci are present in addition, the disease is generally more severe and fatal. In pseudo-diphtheria, membranous affections in which the Klebs-Löffler bacillus is absent, and caused by micrococci and streptococci, the mortality ranges from 0 per cent. to 20 per cent., so that it is a much less fatal affection than true diphtheria.

The bacteriological investigation of diphtheria has shown that the Klebs-Löffler bacillus may sometimes be present in the throat long after all local manifestations have disappeared. In half the number of cases it lingers for at least a week, and it has been met with as long as nine weeks. Presumably, while the bacilli remain, the case is a possible source of infection, and in New York isolation is insisted upon until cultivation shows their absence.

Provided that the cultivations are satisfactory and have been made with due care, the only fallacy in the bacteriological diagnosis is the occasional presence of what are termed 'pseudo-diphtheria bacilli.' These are bacilli which morphologically resemble the Klebs-

Löffler bacillus, but which are found to be non-virulent when tested on animals. These pseudo-bacilli are only rarely met with, their exact nature is doubtful, and their occurrence does not constitute a practical objection to the bacteriological method of diagnosis. The occasional error which they may possibly introduce is one on the safe side.

The Public Health Service of New York now gives the greatest facilities for the bacteriological diagnosis of diphtheria. At a number of stations a 'culture outfit' can be obtained. This is a small box in which are two test tubes, the one a tube of sterilised blood-serum, the other containing a sterilised swab. The physician, having made the inoculation in the manner described above, returns the tube to the station, where it is incubated and examined, and the next morning a report is forwarded to him.

When shall we have a like condition of things in this country?

[Many laboratories &c. now provide the necessary 'culture-outfits,' and undertake the examination of the inoculated tubes and furnish reports thereon for a small fee. For further information on the method of diagnosis described the reader is referred to two papers in the *Medical Record* (New York): (1) September 15, 1894, p. 321, Biggs; (2) September 29, 1894, p. 385, Park and Beebe.]

ANTITOXIN TREATMENT OF DIPHTHERIA

By the time this article appears in print it is probable that every practitioner throughout the country will be well informed of the progress of this new method of treatment; antitoxin being now recognise not only as a legitimate remedy, but as one which no medical man is justified in neglecting to make use of.

We propose now to sketch, as far as may be useful, the present aspect of the matter, and describe the points which may be helpful in the application of the treatment.

Preparation of antitoxin.—It is doubtless well known to our readers that the horse is the animal which is most suitable for the purpose of the preparation of antitoxin.

How the preparation is made.—Horses are inoculated with the toxin, and gradually made to stand stronger doses. When the animals can bear considerable doses of the toxin without showing signs of ill health, the serum of the blood becomes the antidote or cure or remedy for diphtheria.

Dr. Sims Woodhead gave a lecture upon **the diagnosis and antitoxin treatment of diphtheria** at the Examination Hall of the Royal College of Physicians and Surgeons on Friday, December 7, 1894. He urged the importance of **an early diagnosis of diphtheria.** The bacilli are almost invariably found on the surface of the false membrane, although sometimes more deeply; but seldom, if ever, in the mucosa.

The Metropolitan Asylums Board have taken this matter up very enthusiastically, and Dr. Sims Woodhead, as director of the Research Laboratories, is sending out to the hospitals under the management of that Board small cases containing apparatus for collecting specimens for examination. The contents of these cases are as follows: (*a*) a test tube (plugged with sterilised cotton wadding) in which is a quantity of suitable solidified nutrient medium carefully sterilised; (*b*) a second tube also plugged with cotton wadding, in which is held a small soft steel rod, roughened at the end, around which is fastened a pledget of cotton wadding, the whole being carefully sterilised by dry heat. When a case of diphtheria is to be examined, all that is necessary to be done is to take these tubes from the box, take out the wire with the pledget of cotton wool, and press it gently but firmly against the membrane in the throat, or at the place from which the membrane has disappeared. The serum tube is then opened, and the pledget is drawn carefully once or twice from bottom to top of the inclined serum surface. The cotton wadding plug is returned, the wire with the pledget is replaced in the empty tube, and the box is packed up and sent at once for investigation at the Laboratories. In those cases in which fragments of the membrane can be easily detached, it is advisable with a platinum spatula, previously heated and allowed to cool, to remove a fragment and to place this in the tube along with the iron wire and its pledget. Such a fragment may be used in case the first inoculation fails to give the necessary results. The serum tube is placed in the incubator, and is examined at intervals until growths make their appearance, eight to twenty hours at the latest, so that the case, even when inoculations are to be made, can be reported upon within twenty-four hours of the receipt of the material.[1]

The lecturer further described the success which has already attended this treatment, especially in Paris, where the deaths have been reduced to the extent of 30, and in some cases to 50, per cent.

[1] In the foregoing paper by Dr. Hewlett a somewhat similar method is described.—Ed.

When the disease is once got under, we have little or no fear of any return. It is not a process of vaccination, though it is quite possible, from what has been seen in experiments on animals, that a temporary protection may be obtained which will carry the child over the period of danger in an infected house or district. The antitoxic serum is a direct therapeutic agent, and is only of service in patients actually suffering from the disease. Cautious observers, both among pathologists and physicians who have had an opportunity of observing a number of cases treated, have acknowledged that they have been surprised at the results obtained, and Virchow, who almost from the first deprecated the extravagant claims that were put forward for Koch's tuberculin, has stated that, in view of the remarkable results obtained in carefully observed cases of diphtheria, it is the duty of every physician to employ the antitoxic serum remedy, in spite of the fact that a certain number of attendant drawbacks have been described. A good deal of nonsense has been written, says Dr. Woodhead, about the danger of injecting organic fluids into the body, especially organic fluids taken from animals suffering from disease—such as glanders and tuberculosis. The obvious answer to such objections is that serum is never taken from an animal so diseased.

It has also been asserted that the inoculated horse is suffering from diphtheria, and that only the poison which has accumulated in the blood is injected into the human patient. Against this may be placed the fact that the toxin will certainly not neutralise its own action, and if we are dealing simply with toxin we should have a summative and not an antidotal effect . . . .[1]

We will now append the summary of a case recorded by Dr. John T. Malcolm.

Case.—Dr. John T. Malcolm (Dornoch, Sutherland) contributed a case ('British Medical Journal') of which the following is a summary:—

A boy, aged 13, confined to bed September 17, 1894. On September 19, the throat was covered with diphtheritic membrane, tonsils greatly inflamed, pulse 80, temperature 100°F.; tongue greatly swollen. On September 21, at 8 P.M., temperature 100°, pulse 84, jerky, high tension. 9 P.M. injected 40 minims of Dr. Aronson's antitoxin (a concentrated solution). At 10 P.M. temperature 101°, pulse 80, soft, low tension.

September 22, at 10.30 A.M., temperature 99·6°, pulse 76. Expectorated large masses of membranes like small bits of tripe. After injection gentle slumber for five hours. 9.30 P.M., temperature 99° F., pulse 76. Glands at the angle of jaw greatly swollen.

September 23, 11.30 A.M., pulse 68, temperature 99·2°F. Had passed a quiet night. Swallowed better, throat greatly cleared, only two small patches remaining on the uvula. 9 P.M. temperature 99·2°F., pulse 72, very low tension. Peculiar rhythm; alternating rise and fall of beat for a few days which appeared to be result of injection of antitoxin.

September 25. Temperature 100°, pulse 80. Patient now swallowing well and sleeping well.

October 18. Patient going about the house, regaining health and strength.

Remarks.—This was a severe case of diphtheria. The boy could neither swallow food or medicine, nor open his mouth sufficiently to allow painting or spraying of the throat. Fatal termination was apprehended. The good effects of the antitoxin were:—

(1) The profuse expectoration of membranes: (2) the quiet and ease the patient enjoyed after the injection, he being apparently free from all suffering.—

The antitoxin was obtained from Messrs. Zimmerman, of London. A great many cases have been reported in the 'British Medical Journal' more or less favourable to the treatment.

DIRECTIONS FOR THE USE OF ANTITOXIN SERUM

It may be laid down as a fact that the best chance of success is secured by injecting the serum as soon as possible after the diagnosis is confirmed. Even should the case turn out not to be an instance of true diphtheria, it seems that no harm will be done. In order to come to a definite conclusion as to the real efficacy of the serum, a bacteriological examination of the throat exudations or membranes, if present, should always be made, as it is only by carefully excluding all cases but those of true diphtheria from our statistics that we shall arrive at a correct idea of the effect of treatment. Those who have not the technical skill, appliances, or time for such an examination can now have it done for them by some such arrangement as that carried out by the Clinical Research Association, the fees being sufficiently reasonable to almost do away with the deterrent effect of cost.

[1] We were indebted for the first report of Dr. Woodhead's lecture to the *Medical Press and Circular*.

As to **the precautions** to be observed in using the serum. It must be borne in mind that the dose is a large one, and in injecting an amount of 20 cubic centimetres (over 5 drachms) of an organic substance into the tissues there is great need for very careful asepticity of the serum, skin, and instruments employed. Failure in any of these directions is liable to induce septicæmia, which cleanliness would have avoided. The serum itself is sent out in an aseptic condition in stoppered bottles. The preservative generally employed is camphor, but if not required for immediate use it is well to keep the bottle in a cool place and screened from the light, so as to avoid all chance of decomposition. The best form of syringe is one after the pattern of Roux, and capable of holding the full 20 cubic centimetres required. It should be sterilised before use by boiling for about ten minutes in water. Some of the syringes are conveniently made so that their cases serve as miniature saucepans in which to carry out this operation.

Lastly, the seat of selection for the injections is the loose tissue between the scapulæ. The part should be first carefully washed with soap and water, then dried, and the injection made into the loose subcutaneous tissue. The serum is generally absorbed within a few minutes, and gives rise to no unpleasant local effects. The syringe should be again sterilised before being put away, the needle being carefully cleared of the drop of serum which it contains.

Among the various letters to the journals describing personal experiences of this treatment, some have stated that the result has not been satisfactory; but we find that in some of these reports the dose is considerably smaller than that recommended, such as 15 mm., and six hours later another 5 mm., in a severe case of diphtheria. Then, again, it is impossible for us to estimate the value of the foreign preparations of antitoxin serum, some of those of the manufacturing chemists in Germany being concentrated, and therefore far more likely to be wanting in uniformity in strength, and possibly inefficient, than those prepared as they are in this country.

Twenty cubic centimetres (over 5 drachms) may be injected upon the first occasion, and twenty-four hours later either the same dose, or half that amount, may be administered; and should the symptoms, and especially the temperature, remain serious, another dose may be given later on. This is the plan adopted by Roux, and he has never used less than a dose of 5 drachms, and has even administered as much as 4 ounces, and in one case between 6 and 7 ounces.

Dr. Klein's serum.—The serum sent out by Dr. Klein for the use of hospitals is accompanied by a memorandum of instructions in which it is stated that the ordinary therapeutic dose is $1\frac{1}{2}$ to $2\frac{1}{2}$ fluid drachms.

It is further advised in this memorandum that 'an accurately graduated glass measure, previously sterilised by boiling, should be taken, and the quantity of the serum required for one injection (namely, $1\frac{1}{2}$ to $2\frac{1}{2}$ fluid drachms) should be poured into the measure, the bottle re-stoppered, and kept in a cool, dark place under a glass bell-jar.' Any surplus is not to be poured back into the bottle.

The smaller dose here advised is considered sufficient, as Dr. Klein's preparation is more powerful than that above referred to.

Supply of antitoxin.—We have made inquiries as to obtaining the antitoxin serum, but probably by the time this Journal is published the facilities will be very largely increased, and the supply of antitoxin sufficient to meet the demands.

The British Institute of Preventive Medicine has for some time been issuing to certain public institutions a supply of antitoxin through the instrumentality of Dr. Klein, who has instituted a plan of producing the antitoxin much more quickly, and apparently more satisfactorily, than hitherto carried out.

We have written to the principal firms of chemists in London, to inquire whether they are able to supply this remedy. Several of them write to say that at present they are not in a position to do so. Messrs. Arthur & Co., of Berners Street, state that they have tried to obtain antitoxin from the British Institute of Preventive Medicine; but they are told that it is not yet decided whether the remedy will be supplied to chemists, and that probably it will not, because they do not care to run the risk of its decomposing by careless treatment. The Institute expects to have enough serum by the middle of January to supply all England. Messrs. Zimmerman are the agents for Aronson, but are unable to supply now because the demand abroad is in excess of the supply there.

The only firm which seems to be prepared to supply antitoxin is Messrs. Burroughs, Wellcome, & Co., who have twelve horses in their own hands under skilful scientific treatment; all the work being under the superintendence of a research scholar of the British Medical Association, who has studied the subject under Roux in Paris.

DISCUSSION ON THE ANTITOXIN TREATMENT OF DIPHTHERIA AT THE CLINICAL SOCIETY, DECEMBER 21, 1894.

In this discussion the following remarks seem to us to be well worth repetition.

Dr. Sims Woodhead said the paper contained many points besides those of clinical interest. The cases in which the diphtheria bacillus preponderated were apt to end fatally and early. Those in which with the diphtheria bacillus there were streptococci lasted longer, and fewer of them died. As to the antitoxin, he thought one must attempt to increase the strength of the serum rather than to isolate the antitoxin, which was of very unstable composition. It was in solution in the serum, and its separation must be difficult. In solution it remained in a stable condition. In Klein's and Roux's serum one dealt with two different substances. Antimycetin, as Klein's serum might be called, had greater effects on the bacilli than on the poison produced by the bacilli. In diphtheria a series of poisons, probably, were produced which subsequently acted on the other tissues of the body; as in tetanus, they affected the nerves and muscles. In this, perhaps, lay the key to the greater success of antitoxin when used in the earlier stages of diphtheria, as compared with the comparative failure in the treatment of tetanus by the antitoxic method. Tetanus was only recognised when the local symptoms were over, and the poisons formed later on had already produced their effect.

Dr. Goodall said that, as to the day of the disease on which antitoxin was used, it was omitted from the paper because it usually depended on the unreliable statements of third parties. He had a table, however, which showed that of thirty-two cases injected within the first three days only two died, whereas of twenty-nine injected from the fourth to the fourteenth day as many as eleven died. He did not despair, however, of success, even if the case was beyond the fourth day at the time of the injection. One observer had mentioned that two out of his five cases had died of suppression of urine, and attributed this result to the antitoxin treatment. But, if the serum determined nephritis, how was it that in none of the non-diphtherial cases treated by serum was there albuminuria? A tendency to anuria was amongst the commonest symptoms of diphtheria, and Dr. Goodall considered that local treatment of the throat trouble should be persevered with even after the antitoxin had been used. In his series of seventy-two cases warm water alone had been employed locally. The use of antitoxin usually brought the temperature down if it was raised beforehand. It might at first rise a little, but he did not lay much stress on the temperature at all. As to his several previous series of seventy-two cases each, the lowest mortality had been 25 per cent. and highest 47 per cent. Only twice had he seen a mortality under 30 per cent. within the same year. It was very striking, therefore, to obtain at once a mortality under 20 per cent.

Brit. Med. Jour. Dec. 29, 1894.

CLINICAL RESEARCH

Under the patronage of Dr. Clifford Allbutt, Sir William Broadbent, Dr. Goodhart, Sir G. M. Humphry, and others, a **Clinical Research Association** has been formed ' with the object of assisting medical practitioners in the investigation and treatment of disease by providing them with trustworthy reports upon excretions and morbid products, for the due examination of which neither time nor opportunity can be readily found in the hurry and stress of private practice.'

Subscribers to the amount of five shillings receive from this Association a box containing bottles with printed labels attached, ready to receive any morbid product which it may be desired to send. Each bottle is enclosed in a case ready to go by post.

One great point in favour of the success of this undertaking is the very moderate scale of charges which has been arranged. For instance, the examination of sputum for tubercle bacilli, with a prepared slide, 2*s.* 6*d.*; or a report upon the case, 2*s.* 6*d.*; the prepared slide and report together, 3*s.* 6*d.* The highest charge for any one undertaking is for that of bacteriological examination of supposed diphtheritic membrane with a report by telegram, 7*s.* 6*d.*

We wish this undertaking every success, and think that there can be no doubt of its immense value and convenience if the work is thoroughly carried out; and judging from the careful and systematic way in which the plan has been prepared, we cannot but think that it will be continued equally well.

The Secretary is Mr. C. H. Wells, Clinical Research Laboratory, 1 Southwark Street, London Bridge, S.E.

Tubercle bacilli in the nostrils of healthy persons.—Straus (*Archives de méd. expér. et d'anat. pathol.* July 1894) tested the dust,

solid particles, and mucus of the outer nasal cavities of twenty-nine patients and ward tenders in two hospitals of Paris. The subjects of the test had all been in the hospitals for at least several months, but were not in any way tuberculous. The dust and other nasal contents were removed by the aid of sterile cotton plugs and caught in sterilised water or bouillon, which was injected into the peritoneums of guinea-pigs. Out of all the experiments (twenty-nine), seven trials caused death of the animals by septicæmia or purulent peritonitis. In nine other experiments tuberculosis became unquestionably manifest in from three to five weeks from the time of inoculation. The lesions were very distinct, and the bacilli were demonstrated in every one of these cases. Therefore nearly one-third of the people tested had virulent tubercle bacilli present within their nostrils.—*New York Medical Journal*, December 1, 1894.

Epitomised Lectures and Papers

Much valuable information is lost to the more busy practitioner because he has not the time to read the mass of material which is weekly published. We shall therefore, under this heading, epitomise some of the more important and interesting lectures, papers, and reports which are published in various medical journals, endeavouring to describe the more practical outcome of the material at our disposal.

MODERN VIEWS UPON GOUT

In an address delivered before the Willesden District Medical Society on October 4, 1894, Dr. Goodhart, physician to Guy's Hospital, made some very interesting remarks regarding his experience and views upon gout or uric acid diathesis.[1]

Gout as a poison.—He referred to the very general idea that gout depends upon the circulation of uric acid in the blood and tissues, and 'that it acts as a poison, producing in one, gout in the big toe; in another, say, lumbago; in another sciatica; in another migraine; in another indigestion; in another insomnia and the black bile, or the blues; in another palpitation, angina, asthma; and so on through a large part of the nomenclature of disease, for there are few things that have escaped the grip of the uric acid diathesis at one time or another in the imagination of this individual or that.'

[1] *Lancet*, October 13, 1894.

In reference to this view he states that, 'after some years' attention to the subject, I am sorry to have to say that I cannot anyhow make my present-day experience fit in with this notion of uric acid. . . . I will begin by making this admission, that many of the ailments I have mentioned as the indices of lithæmia are preceded or followed by a rise in the uric acid tide, as it is called, and that admits of the explanation that the excess of the excretion is an indication of the cause of the disturbance. But does it admit of no other alternative? Obviously it does. The supposed cause may be only a result.'

Uric acid deposit.—Dr. Goodhart thought that there was a very general view taken, both by the public and the profession, that a brick-red sediment in the cold urine is an indication of a gouty tendency. 'But is it of any value at all? Certainly not in the form of propositions so naked and unadorned as this. A sediment of this kind will certainly often indicate that a man has eaten too much, and so far is perhaps a pointer in the direction of gout, but its only true meaning is that there is a disproportion between the solids and fluids of the body. If a man has heart disease and his fluid output is always scanty, his solids will be in excess in the urine, and he will by that criterion be lithæmic; but the same thing will happen if a healthy man has a hard day's exercise and sweats freely and does not replace his loss in this respect by an equivalent amount of water.'

'People who find their urine thick on standing are apt to rush off to their medical adviser for a pill for their livers, or take a pill without consulting him at all. But the deposits of urates have very little indeed to do with gout. A gouty man may have an attack of podagra, or of one of its several substitutes, his urine remaining free from sediment of any kind, and of low specific gravity.'

Nitrogenous diet probably not a cause.—'The orthodox treatment is to cut off all meat and sugar, possibly butter and bread, and wines, and the patient sufferer lives upon fish, a little pigeon or game for a treat, green vegetables, and dry toast. Instead of wines that hypothetically turn acid he has to drink whisky, which perhaps does not; but this may be, I know not, jumping out of the frying-pan into the fire, in some other direction. . . . As a matter of observation I cannot bring myself to see that dieting

of this rigid kind makes any difference in the great majority of people that I see, and in the absence of any decisive proof from this direction there is considerable difficulty in others also, for the total quantity of free uric acid in the blood seems so small a thing to produce such multitudinous effects; it always seems to me to play somewhat the part of a chemical spinster that has failed to find its mate in some eligible base. And one would think, moreover, from this point of view, that it would be difficult so to regulate the intake of food as to supply "bachelors" and "spinsters" in exactly equal proportions.'

'I see that gravel is quite a common thing in even young infants, and that it occurs in childhood not in the large meat-eaters as one would suppose, but in those largely fed on farinaceous foods; and curiously enough, I have strong suspicions that an everyday meal of porridge is a sinner in this respect, although I believe it is one of the permissible articles. I have over and over again put such children on more meat —certainly with no disadvantage—quite the opposite, I think. And as one passes to adult age the people who form the majority of the uric-acid-passers that come before me are not the high-living and obese, but, on the contrary, the deep thinker, the moderate liver, the man who has divested himself of every rag of diet that can possibly be dispensed with, so well has he learned his lesson that diet does all the mischief; the man of spare frame and anxious disposition; and the man who has a struggle to make both ends meet, or whose affairs, after being affluent, are becoming embarrassed. Then the history of stone in the bladder creates a difficulty in accepting the meat origin of uric acid. It is exceedingly common amongst the native population of India, where the people can hardly be accused of eating much meat. It is said to be extremely uncommon amongst the children of the upper classes in England, where meat, as a rule, is eaten in fair quantity. And as regards morbid conditions that come more particularly under the ken of the physician, I see it sometimes in the hypochondriac and melancholic, and in the dyspeptic; I see it in association with glycosuria, or interchanging with it; I see it again in storms in the course of chronic Bright's disease; and when one comes to think about it the condition is so common that it is impossible to enumerate all, or nearly all, the conditions under which it makes its appearance.'

The uric acid bugbear.—'Now, notwithstanding all this diversity in the manner of its appearance, if the patient seeks advice everyone is put through the same mill. Uric acid is the devil, and attempts are made to drive it out. The uric-acid-er is deprived of red meat and sugar, and so on through a long list of the "may not eats" and "may not drinks" until at last the patient is reduced to this: that on asking him what he has been allowed he savagely replies, "Nothing, sir, nothing! everything that I liked or cared to eat, he cut me off." And as for drugs, again everyone goes through the same round—hot water, cold water, alkalis, iodides, salicylates, and so on through piperazine up to the latest new uric acid solvent.'

The speaker went on to describe 'headache, high tension, epilepsy, convulsions of another sort, hysteria, mental depression, fatigue, asthma, bronchitis, dyspepsia, gout in the stomach, Raynaud's disease, paroxysmal hæmoglobinuria, anæmia, Bright's disease, glycosuria, gout, rheumatism, morbus cordis, and so on;' and he asked, 'Are all produced by this, as I say, excess of a body that we have all more or less to become acquainted with?

'Does it not seem much more rational to look at it as a product that is formed in various ways; that in each it is formed in individual fashion; that it is with these *chemical* products as it is with *structural change*; that there are limits to these, and that, as there are many diseases represented by one anatomical deviation, so it is with uric acid and many other animal outputs—an ash of some burnt-out fire, an expression on the part of function, as I have elsewhere put it, equivalent to the anatomical one of organic change? I am sure of this, if I am sure of anything, that I have seen many a patient made more and more ill by persistence in a rigid form of dieting to get the uric acid out of the system.

'It is all very well for a man to make experiments upon himself and then go and preach a universal rule. I maintain that that ignores the very first principle of the art of medicine—viz. that disease is in all cases individualised, and that we have to treat the *individual* and his *malady through him*. If it were not so, we should certainly by now be treating disease by a code of rules, and how happy should we not be!'

Meat and beer for the average Englishman.—'I believe that diet is as much a product of evolution as man himself, and that food that is universally adopted by any race is, on the whole, that which its unconscious instinct has found to be best fitted to it under

the various conditions of its environment, chiefly climatic. And, for ourselves, that leads me to a strong belief in the *use*—the use, mind you don't mistake me, not the abuse—of meat and beer for the average Englishman; but I am inclined to think that a study of a nation's diet, and its changes, may give some indication of the slow changes of constitution that it seems to me must come about in the long course of years.'

The lecturer did not think that all uric-acid-passers should live on bread and vegetables and fruit exclusively and never touch beer. 'Therefore it is,' he said, 'that I ask you to turn the facts round and look at them the other way before you accept unhesitatingly any diet theory of uric acid. And I think, if you do, whatever may be true for the *individual* will prove the *exception* for the *majority*; and at any rate I am sure that looking at both sides of the question will be instructive to ourselves and not without advantage to our patients.'

The uric acid theory.—Dr. Alexander Haig, physician to the Metropolitian Hospital, has written a very clever work upon **uric acid** as a factor in the causation of disease; he has also lately written ('Brit. Med. Journ.' Dec. 8, 1894) a paper upon this subject, with both of which we propose to deal in our next issue.

THE MECHANICAL THEORY OF GOUT

Dr. Ralph states that his convictions are on the side of the mechanical exponents of the disease, rather than with the chemical theorists. He called attention, in a paper read before the Islington Medical Society on October 23, to the abuse of the term 'gouty' that had lately sprung into use. There was no evidence, he thought, to show that uric acid was necessarily formed to any extent in the human body as an antecedent to urea. Sir William Roberts considered that the daily excretion of uric acid might merely represent a *vestigium* of the solid urines of lower organisms.

In a case of simultaneous double obstruction from uric acid calculi which Dr. Ralfe had seen with Dr. Brookhouse of Brockley, the patient did not pass a single drop of urine for four days before relieved by operation. During that period she was in her usual state of health, there being no evidence of an accumulation of uric acid in the blood or tissues.

These and other considerations proved, Dr. Ralfe considered, that uric acid was a consequence, not a cause, of gout. He thought that, in health, uric acid was destroyed or used up at the time of its formation; and that during the gouty paroxysm the uric acid was not used up, but, like sugar in diabetes, passed freely into the circulation, and, being highly insoluble, was deposited in the extra-vascular tissues.

Many disturbances attributed to uric acid might be caused, not by the positive addition of a poison, but by the withdrawal of some inhibiting agent, as was seen in the destruction of the thyroid gland and the development of myxœdema.

With regard to dietetics, the various views that existed showed how little the chemical theories are in accord. One condemned the carbohydrates, especially sugar; another objected to hydrocarbons; while a third theorist tabooed an animal diet; so that the gouty patient, if each view were correct, would be precluded from any food at all.

No one should attempt to treat an outbreak of acute gout by repressive measures; all that should be done was to attend to the evacuation of the bowels, to relieve pain, and encourage the arthritic outbreak. In the chronic form the treatment was more difficult, as the patient's general health was much enfeebled.

Dr. Ralfe decried the universal and indiscriminate use of alkalis at present in fashion. He advocated the use of eliminating waters such as Carlsbad for the plethoric, or Homburg for the more feeble; whilst moderate exercise, such as riding and carriage exercise, restored the enfeebled circulation in the extra-vascular parts.

GOUT AND THE TREATMENT OF OBESITY

It has been thought that the treatment of obesity by the withdrawal of the carbohydrates and the substitution of a more nitrogenous diet is likely to produce an accumulation of uric acid in the body, and thereby to act as a factor in the production or as an absolute cause of gout. We have had some conversation with Dr. Towers Smith upon this subject.

We asked him whether his treatment was at all conducive to gout. He said no, he had never known any such result follow. On the contrary, he had known it to be even beneficial in cases of gout.

One case particularly he mentioned, of a gentleman aged about 45 who had suffered from gout for

years, having several attacks every year. The patient was at the time very anxious regarding the result, but having followed out Dr. Towers Smith's treatment very carefully he reduced his weight from 19 stone to about 14, and since then—now 2½ years—has not had a single attack of gout.

SILVER AND SYPHILIS[1]

A clinical lecture under this heading was recently delivered at the National Hospital for the Paralysed and Epileptic, by W. G. Gowers, M.D., F.R.S., the more practical points of which are as follows:—

Diagnosis of syphilitic tumour of the brain.—The patient presented indications of a sub-chronic local cerebral lesion, with headache and optic neuritis. These two cerebral symptoms with the onset indicate that the local process is a growth. Moreover, there was a history of active syphilis, and we know that whenever we have evidence of a local growth of rather rapid course in the subject of syphilis the probabilities are very great that the growth is syphilitic. They are much less if the growth is very chronic, and that point is important.

Staining of skin from internal administration of silver.—The patient had been treated erroneously in the first instance with silver years ago, and subsequently by a course of mercury which cured him of his actual syphilis. The staining, of course, remained, and was a permanent disfigurement; and Dr. Gowers cautioned his hearers about using this remedy for prolonged periods.

In epilepsy he had not seen it do any good, but it can, he thinks, unquestionably do good **in gastric affections**, especially when pain occurs before meals; that is, when the pain coincides with the absence of food.

The patient, who was present, had been under his observation for twenty-four years, and exemplified the fact that although syphilis might be cured by appropriate treatment, yet it would generally leave some permanent mischief from destruction of tissue—if that tissue be in the skin only, leaving a scar, or, if in the brain, leaving impairment of nerve tissue.

In the case described the effective treatment of the syphilis had been early enough to stop the neuritis before very grave damage was done to the fibres of the optic nerves, but some impairment of sight remained. There was also some loss of muscular power, and hemi-anæsthesia, which had been complete, now only remains partial.

Symptoms of local brain lesion are never due directly to the syphilitic process.—In true syphilitic affections, those which can be removed by iodide of potassium and by mercury, the syphilitic process is altogether outside the nerve elements themselves. These suffer secondarily from compression of a syphilitic gumma as they would from any other tumour. The nerve fibres may be inflamed by the pressure, but this inflammation is not a specific syphilitic process.

If these secondary processes continue until absolute destruction of tissue occurs, the loss of function will be permanent; but if the disease be cured before such destruction, then recovery of function, complete or partial, may take place.

[1] *British Medical Journal*, December 1, 1894.

GESTATION AND MENSTRUATION

GENERAL PHYSIOLOGY AND PATHOLOGY, ILLUSTRATED BY THE STUDY OF GESTATION AND MENSTRUATION

Delivered before the Glasgow Obstetrical and Gynæcological Society on November 2, 1894,

By ROBERT BARNES, M.D. Lond., F.R.C.P.

Consulting Physician to St. George's Hospital and to the Royal Maternity Charity.

This address[1] teems with thoughtful suggestions and valuable observations, of which the following are more especially applicable to practice.

[1] *Lancet*, Dec. 1, 1894.

William Harvey

Born 1578. Died 1657

The portrait on the opposite page is from an engraving by J. Hall, after the painting by Cornelius Jensen. It appears as a frontispiece to the work, 'Opera Omnia, a Collegio Medicorum Londinensi edita.'

Corn.s Jonson pinx.t

J. Hall sculp. Londini

Guilielmus Harveius,

COLLEG. MEDICOR. LONDIN. SOCIUS.

Epictura Archetypa in Aedibus Collegii Medicorum Londinensis asservata

A factor in the production of puerperal septicæmia. The discharge of blood attending labour, and that which is known as the 'lochia,' is strictly physiological. It is the first and immediate step in the restoration of the single circulation following the casting off of the embryo. By this discharge the excess of circulating blood is got rid of. But this is not all. If the loss of blood exceeds the physiological need, the force of absorption is accentuated, a vacuum force is added which favours the sucking-in of any fluid matter from the genital canal, from the intestinal canal, and also of any fluid or aerial matter existing in or brought to the lungs. This, then, is a prime factor in the production of puerperal septicæmia. In physiological degree hæmorrhage and absorption lead to the healthy disposal of effete matter.

The safety-valves of vascular tension during pregnancy.—The predominant force of the circulation during gestation being constructive and eccentric disposes to exudation and hæmorrhage. The vascular tension is moderated by increased secretions, as of urine, saliva, and other mucous discharges. These failing to maintain the normal equilibrium, serous effusions into the serous cavities, cellular tissue, and even into parenchyma of organs, and external hæmorrhages, chiefly from the nose, lungs, stomach, and intestines, take place. Thus abortion may be averted, and when abortion occurs this may also be regarded as a conservative event. These safety routes failing, internal hæmorrhages into the structure of organs may occur, as into the brain, causing apoplexy. The lesson this teaches is clear and decisive; it is to relieve the 'physiological plethora' in some cases by venesection, a proceeding too much neglected of late, or by bringing the pregnancy to an end. The same argument applies emphatically to the treatment of convulsions and some cases of mania. Strictly associated with the maintenance of the physiological equilibrium is the action of the lungs and skin.

Albuminuria, physiological in origin.—An instructive lesson may be drawn from the direct observation of the mucous membrane of the vagina and rectum. This membrane reveals to the eye the action of extreme vascular tension upon the peripheral structures. We see deep congestion, epithelial desquamation, mucous exudations, and frequently prominence of the superficial veins. Corresponding with this we see the darkening areola and distension of the breast, and often secretion of milk. We may surely draw from what we thus see the conclusion that similar conditions are brought about in the mucous membranes that lie beyond our sight. This is certainly true of the kidneys. We may see epithelial scales in the urine of pregnant women without albumen as well as in cases where albuminuria existed. It is useful in this connection to bear in mind the peripheral mucous membrane and skin congestion attending scarlet fever. Many years ago I described a form of leucorrhœa[1] in children with epithelial exudations persisting after recovery from scarlet fever. Reflecting on these parallel conditions, we cannot fail to be impressed by the frequent occurrence of albuminuria in scarlet fever, and the light thus thrown upon the origin of this affection. That it is an expression of high arterial tension is confirmed by the occasional presence of blood in the urine. This seems to show that the albumen comes direct from the blood by exudation. That exalted tension is the main factor and that organic change of tissue is not necessary is further proved by the fact that complete recovery commonly follows when the pregnancy and attendant high tension come to an end. And further confirmation is seen in the establishment of persistent albuminuria and change of tissue if the tension be sustained too long or be repeated. This is strangely neglected by the ordinary physician.

Jaundice and diabetes.—By strict analogical deduction and clinical control we may in like manner explain the occurrence of jaundice and diabetes. These disorders arise and disappear with pregnancy, proving that they are not dependent for their origin upon change of structure. Of late years it has been recognised that diabetes is sometimes temporary; and this condition has been described as 'physiological glycosuria.' But this fact has long been familiar to those who have studied the phenomena of pregnancy. I have known several cases of women who had diabetes in every pregnancy, and only then. The quick, almost sudden, disappearance of albumen in pregnancy when the excessive vascular tension subsides is enough to prove that it is not necessarily the result of inflammation, at least in its origin. Dropsy and œdema are evidence that the ordinary excretory organs are overpowered, and the balance between endosmosis and exosmosis in the capillary system is lost. Effusion also takes place in the brain.

[1] *Medical Gazette*, 1850–51.

I have noted distinct appearances of œdema in the brain in women who had succumbed under albuminuria and eclampsia. The action of poisoned blood upon the exalted nervous tension may produce delirium, convulsions, and insanity. These disorders may be in many cases relieved by bleeding or by abortion. and thus removing the cause of the exalted nervous and vascular tension, and restoring the force of absorption with a quickness that proves the sources and cause of the affection. This history indicates the route of research to be followed for causes in other diseases independent of pregnancy.

Blood changes.—Embolism and thrombosis are phenomena strikingly illustrated by the action of the blood in pregnancy. In excess of fibrin the blood resembles the blood of inflammation. It 'cups' when drawn, and so is prone to coagulate in the vessels. This occurs under various conditions—such as the presence of toxic matter. I have known it to occur, leading to gangrene of the legs, under the influence of strong emotion. One remarkable manifestation of vascular tension and hyperfibrinated blood is seen in effusions and thrombosis in the eye. Liebreich has figured it.

Nervous disorders : insanity.—Just as we have seen that albuminuria, diabetes, and nervous diseases may be cured or averted by bringing pregnancy to an end, so we may find that similar and other diseases, persisting so long as these diseases are treated as essential morbid entities, are quickly relieved or cured by curing the associated causative disorders of the genital system. How often do we see hysteria, and even insanity, long treated on general principles persist, and be promptly relieved when the provoking disorder of the sexual organs is removed !

Climacteric disorders and insanity.—An error into which many alienists fall is to look upon cases which might strictly be considered examples of climacteric nervous disturbance as really dependent upon disease of the nervous centres. Under this error many women are secluded as lunatics who are in reality going through an epoch of strained physiological trial, and who are thus placed in imminent danger of drifting into the domain of pathology. I have discussed some of the relations of nervous diseases and insanity to gestation on other occasions. I will simply here repeat the strong opinion I have formed from clinical experience that many cases of mental disorder, ranging from excessive psychical, emotional, and diastaltic mobility to the graver forms of insanity, are due to functional disorder or disease of the ovario-uterine system. Although this truth has been more fairly recognised of late by some physicians who study mental diseases, there still remains the fact that women labouring under insanity do not receive the benefit of that first fundamental clinical law which directs interrogation of all the functions and all the organs. If this law were duly observed, not a few women certified as insane might be cured ; and many more might be relieved of peripheral irritation which, if not mainly causative of their insanity, is certainly an aggravating factor. Surely insane women have as just a claim to relief from the distress which arises from ovario-uterine disorder as have those whose intellect is sound. The logical corollary from this argument, which I have advanced elsewhere, is that a skilled, thorough inquiry should be instituted into the bodily condition of women confined in asylums.

The value of lactation.—Let us now trace briefly the second great force evoked when gestation is accomplished—namely, the sudden fall of tension and the substitution of absorption for construction.

If the physiological process goes on smoothly the redundant tissues undergo fatty metamorphosis. This converted matter is partly eliminated by secretion or excretion, and part goes to the formation of milk. Here we see a beautiful illustration of the old aphorism : 'Nature does nothing in vain.' Now, if any disturbance or defect in the course of lactation occur, the organs losing their proper mode of relief, the process of fatty metamorphosis is arrested, involution or return to the ordinary condition is hindered, and the physiological hypertrophy passes into pathological hyperplasia. In this way we may trace the origin and development of tumours, especially of the homologous kind, and other structural alterations. Fatty metamorphosis and elimination give way to fatty degeneration. This is the history of many cases of fatty heart, fatty liver, and Bright's disease, and where this change does not take place there is danger of persistent enlargement of the heart. I have traced many such cases following upon the failure of lactation.

Absorption from the vagina, its practical use.—I have for many years turned the natural and intensified absorption-force to therapeutical profit by injecting iodine and other agents into the uterus and vagina.

Thus I have seen hyperplasia and hypertrophic enlargements of the uterus dispersed. So active is the absorption process through this route that the whole system is pervaded. The starch test applied to the skin and saliva reveals the permeation of iodine. I confidently believe that this method admits of further use in the treatment of other than uterine diseases. . . . In many cases it may prove more practicable than subcutaneous injection.

SIR JOHN RUSSELL REYNOLDS, Bart., M.D., F.R.S., and SIR JOHN ERIC ERICHSEN, Bart., F.R.C.S., F.R.S.

The medical profession is honoured by the bestowal of a Baronetcy upon the President of the Royal College of Physicians, and upon a past President of the Royal College of Surgeons.

This recognition of scientific attainments and eminent positions in their profession has been for some time looked for, and we hope it may, in both cases, be but the stepping-stone to that elevation to the peerage which we confidently expect as a medical distinction in the future.

Congenital Deformities and Parturition

Congenital deformities have a threefold interest. First, as regards their origin, this belonging in a great measure to the study of embryology. Secondly, as regards their bearing upon delivery. Thirdly, as regards the opinion to be given as to the possibility of cure or amelioration.

The second point of interest is probably that of the greatest importance to the practitioner, as, during delivery, recognition of peculiarities may be a matter of considerable moment.

INTRA-UTERINE AMPUTATIONS

The following case (fig. 1) occurred in the practice of Mr. H. M. Lawrence, of Hadlow, Tunbridge. The child was born in May 1891, and at the time when the photograph was taken, of which the figure is a copy, was six months old.

There was considerable retardation of development of the right leg, the exact notes of which are not given, but there were signs of constriction above the right ankle. On the left leg can be seen in the photograph the marks of constriction, which had been more pronounced at the time of birth. In this case, as in

Fig. 1.

the majority of others recorded, there were some other signs of an interference with the natural process of development. There was a conjunction between the index and little fingers of the right hand, in the form of a bridge about a quarter of an inch thick between the centres of these fingers—a condition which might possibly have been produced by intra-uterine inflammation.

Another instance of this deformity in which absolute amputation had occurred was seen by the writer on December 9, 1891. This was a patient of Dr. A. K. Willis, of West End Lane, Hampstead. The child was 1 year and 7 months old, and the right leg terminated just below the knee, leaving a very small stump, over which, however, the child had great power. He was getting about on his knees freely, and was also able to stand on one leg. There was a central cicatrix on the stump, quite according with the general aspect of these cases.

The age of the mother at the time of the child's birth was 40 years. There had been four other children, all free from deformity, none born since. At the time of birth nothing of the lost limb was observed to come away from the uterus. There were no membranous bands seen.

Various explanations of these malformations have been given, but the generally accepted one is that there is some inflammation of the membranes, which have contracted in the shape of cords encircling the

limbs. Regarding this subject it is interesting to note that in some cases the umbilical cord has produced severe constrictions.

Fig. 2 represents such a case. It was a fœtus of three months old, and was sent to Dr. Montgomery, of Dublin, by Dr. W. O'B. Adams. The coiling of the umbilical cord round the left leg has deeply indented

Fig. 2.—Constriction of Leg by Pressure of the Umbilical Cord. (Montgomery.)

it. The cord had been removed from the constricted part to a higher position, so as to show the depth of the constriction.

Dr. Montgomery wrote upon the whole subject in 'The Journal of Anatomy and Physiology,' under 'Fœtus,' vol. ii., p. 324; and Simpson ,of Edinburgh, also published a paper in the 'Dublin Medical Journal' of that time.

Dr. Montgomery, in describing the various recorded cases, referred to one described by Zagorsky (Memoir of the Imperial Academy of Sciences, St. Petersburg, 1834).

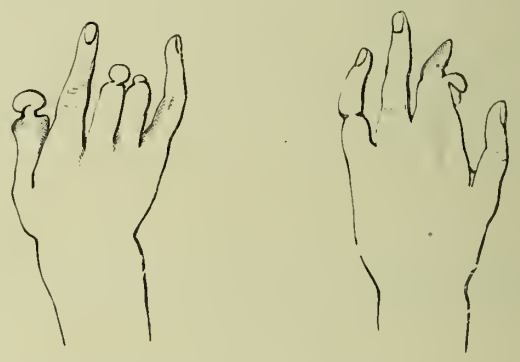
Fig. 3 is copied from an illustration of this case. There was a deficiency of the 'right leg, the thigh ending in a rounded and cicatrised stump, in the centre of which was a small projecting point; from

Fig. 3.—Intra-uterine Amputation by Membranous Bands. F, Foot of right leg. (Zagorski.)

this was prolonged a slender threadlike membrane, strong in proportion to its size, that ran directly across to the left leg, which it encircled, a little above the ankle, like a tightened ligature.' This ligature had formed a deep depression, while the portion below was tumefied. 'From about the middle of the transverse threadlike membrane, a small body of an oblong form was suspended, which, on examination, proved to be a right foot perfectly formed, as its general outline and five toes demonstrated, but not larger in size than the foot of a fœtus of the tenth or twelfth week.'

With regard to the cases where the amputated portion has not been discovered, it is suggested that the part may have been so small as to have escaped undiscovered, or involved in the membranes, or buried in the coagula. It will be remembered tha the separation may have taken place at a very early period of development, as in the case quoted above and therefore we have very small size.

Figs. 4, 5, and 6 are further illustrations of this deformity.



Figs. 4, 5.—Intra-uterine Constriction and Amputation by Membranous Bands. (Erichsen.)

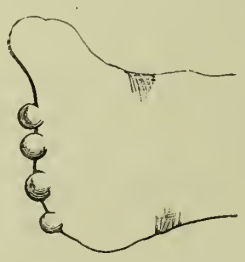


Fig. 6.—Stump of Hand after Intra-uterine Amputation. [Budding of Rudimentary Digits. (Annandale.)

The following references to this subject are noted in Neale's Medical Digest (No. 1539 : 5); 'Brit. and Foreign Med. Chir. Rev.' vol. i. 1857, p. 560, vol. ii. 1863, p. 270; 'Medical Times and Gazette,' vol. ii. 1853, p. 604, also vol. i. 1878, p. 163; 'Brit. Med. Jour.' vol. ii. 1881, p. 78.

CONGENITAL MALFORMATION OF RIGHT HAND

The following case occurred in the practice of W. Clement Daniel, M.D., Epsom.

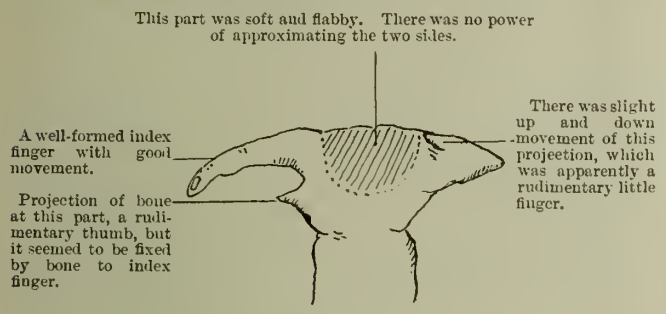


Fig. 1.

The soft part indicated above, consisting chiefly of redundant skin, was removed, and the two sides approximated, with the result as shown below by Fig. 2, drawn a few weeks after the operation.

Fig. 2.

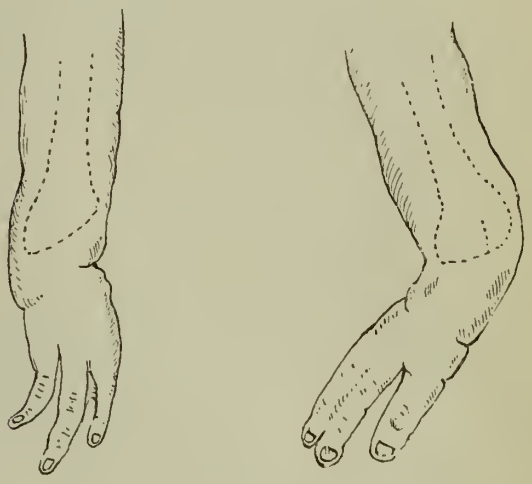
The hand retained its shape subsequently, without strapping.

CONGENITAL DEFORMITY OF ARMS

Occurring in the practice of H. CAMPBELL POPE, M.D.

There was no history of deformity in either the father's or the mother's family. The mother had seven brothers and sisters. The mother had a severe mental shock at the sixth week of pregnancy, according with the period of development of the affected parts. The shoulder joints were normal. The distal ends of the humeri were enlarged and oblique, as shown in the drawings. The right arm is not quite so short as the left, and here the wrist has more movement, and the hand bends downwards and backwards. There seems to be a total absence of forearms.

Treatment.—Separation of the closely united two outer digits by Norton's flap operation ; bridging over the cleft and so preventing reunion.



The Practitioner's Note Book

Edited by RICHARD NEALE, M.D.

Perforation by typhoid ulceration of intestines in very early life.—Mr. S. R. Schofield reports a case of a child aged 1 year 9 months, in whom perforation occurred from an ulcer of the ileum, ten inches from its lower end. There were many other ulcers in the neighbourhood. The chief symptoms recorded were: vomiting, rapid loss of flesh, tympanites, diarrhœa, the motions being slimy but free from blood. There was no typhoid eruption.

The case was under the care of Dr. F. Dawtrey Drewitt, at the Victoria Hospital for Children.

The patient was admitted April 12, 1894, and died April 16.[1]

Dr. Hawkins[2] records six cases occurring in children from 5 years old to 14.

Relief of the spondylitic spine from the concussion of walking.—Dr. J. C. Schapps, of Brooklyn, read a paper thus entitled. He said that in order to reduce to a minimum the concussion of walking, he had been in the habit of placing thick rubber heels on the boots worn by his patients. He had adopted this practice for the past two years, using rubber heels half an inch thick. These should not be nailed on, but should be stitched to the shoe.[3]

[1] *Brit. Med. Journal.* [2] *Lancet*, vol. ii. 1893, p. 245.
[3] *N.Y. Med. Journal*, Oct. 1894.

Rupture of bowel from using hose-pipe as an enema. In the 'New York Medical Record' for November 17, 1894, the case is referred to of a man dying from peritonitis from rupture of the bowels produced by administering to himself an enema with the hose-pipe of his bath-room. He turned on the tap too far, and the force caused the rupture.

In the 'Lancet,' 1887, vol. ii. page 725, twenty-five cases of bowel lesion, due to the improper use of enema apparatus, are noted by Dr. Achilles Verdmann of Basle. The lesions were generally found on the anterior wall of the rectum near the anus.

Syme reports cases of perineal abscess and other injuries caused by injudicious use of enemata in an instructive paper.[1] Koester[2] gives an able *résumé* of similar cases that have occurred in his practice.

An interesting observation in connection with this subject, though scarcely to be ranked amongst the dangers occasionally arising therefrom, was made by Burford in 1888, namely, a septicæmic rash, which in some cases has been mistaken for scarlet fever. Suckling, Staveley, and Confland have, during the present year, noted similar cases. The explanation appears to be that the water of the enemata dissolves some of the fæcal ptomaines, and so renders them easy of absorption.

Nitrate of silver in tuberculosis.—Dr. Crocq, of Brussels, reports ('Lancet,' vol. ii. 1894, p. 755) twenty-one cases of tuberculosis treated with nitrate of silver, the results seeming to him most satisfactory. The drug, he asserts, increases appetite, improves digestion, diminishes cough and sweat, and possibly acts on the bronchi and pulmonary cells by causing them to contract, as it does also the smaller bloodvessels, thus diminishing the supply of blood to the diseased parts. The dose he gives is from one-seventh to one-third of a grain, and he is convinced that this drug has a very great influence on tuberculosis.

In respect to this remedy it is interesting to note that in the 'Medical Times and Gazette,' vol. i., 1857, p. 658, Mr. P. A. Brady, of Bradford, wrote: 'Ten years ago I discovered that nitrate of silver was an absolute specific in phthisis. I have since fairly tried it in more than 100 cases, and can safely say that nine out of ten cases will recover under its use, even if commenced at a late stage of the disease. Cures have been effected in very advanced stages, but, if tried in the last stage, although the symptoms may seem to be suspended for a time, yet the patient ultimately succumbs. In pure laryngeal phthisis it will palliate but not cure. The doses I give are $\frac{1}{4}$ or $\frac{1}{6}$ of a grain of the nitrate, with one of Dover's powder, thrice a day.'

Mr. Robert Martin, of Gilford, County Devon, in a recent private letter, states that, having seen notices of the value of nitrate of silver in phthisis, he gave it a trial in three severe cases, with surprisingly good results. Care must be taken not to continue the drug for too long a period, lest argyria (skin-staining) be set up.

[1] *Lond. Med. Rec.* Dec. 1878, p. 22.

[2] *Lancet*, vol. ii. 1893, p. 245.

Therapeutics

Pilocarpine for acute articular rheumatism.—M. Drappier has used pilocarpine as follows: male aged 45. The salicylates had been given in various doses up to 270 grains of sodium salicylate, and had gradually caused gastric troubles. It was used in injections, but failed. Antipyrine was then given, but that also failed to relieve. Vapour, and then hot-air baths, had little effect. A subcutaneous injection of nitrate of pilocarpine ($\frac{3}{20}$ grain) was given. This was followed by profuse sweating and some sleep. Pain came on on the following day, but was less intense. The injection was repeated, and the patient slept all night.

This treatment was continued, and the pain ceased on the fourth day, but the injections were continued for two days longer, when all inflammatory symptoms had subsided. The patient had no relapse, was entirely cured, and returned to work.[1]

Acute coryza.—Brandt's remedy, said to very popular in Germany, is as follows: Pure carbolic acid, ammoniacum, each, nine parts; alcohol, three parts; distilled water, twenty parts. A little sponge wet with this solution is to be placed in a paper cone, through which the vapours are to be inhaled by the nose.

The following procedure, recommended by Unna, of Hamburg, sometimes gives very good results: At the outset of the coryza the nasal passages are to be sprayed with a small quantity of a mixture of one part of ichthyol and one hundred parts each of ether and alcohol. The application of the spray is to be made only once.

Schrötter recommends practising antisepsis of the nasal passages by moistening them several times in the course of a day with the following solution, previously warmed: Corrosive sublimate, two-thirds of a grain; Sydenham's laudanum and cherry-laurel water, each, twenty drops; distilled water, four ounces and a half.

The following powder is recommended: Boracic acid, seventy-five parts; salol, twenty-five parts; menthol, one part; cocaine hydrochlor., two parts and a half. These ingredients are to be reduced to a fine powder, and a good-sized pinch to be snuffed about once an hour. This powder, which is at the same time antiseptic and analgesic, is said to cause the sneezing to cease immediately, to restore permeability of the nose, and often to put a stop to the coryza in the course of twenty-four hours.[2]

Antipyrin mandelate in whooping cough.—This new preparation is made by uniting antipyrine and mandelic acid, forming a crystalline body.

[1] *Journal des Sciences Médicales de Lille*, Sept. 15, 1894 (*New York Med. Jour.*).

[2] *New York Med. Jour.*, from *La Presse Médicale*, Sept. 15.

Dr. Rhen[1] reports his observations on over fifty cases. Given in the declining stages of pertussis, it quickly checked the cough, improved the appetite, and stopped the vomiting. The course of the disease varied under this treatment from three to five weeks. The dose for infants under one year was $\frac{1}{20}$ gr. to $\frac{1}{10}$ gr. For children between three to five years $\frac{1}{4}$ gr. to $\frac{1}{2}$ gr. There were no bad symptoms from its use.

Antipyrin in large doses for chorea.[2]—The conclusions deduced from Dr. T. McCall Anderson's paper upon this subject are as follows:—

1. Antipyrin is not the dangerous drug which some observers have led us to suppose.

2. It may be given with safety in large doses, even in the case of children (as a rule), although *the initial dose must be small*, and slowly and cautiously increased, the patient being carefully supervised.

3. In large doses it often yields surprisingly good results, and in chorea it is the only medicine from which cures may confidently be expected.

Bad effects have probably arisen from—

1. Impurity of the drug, or,
2. Too large an initial dose, or,
3. Idiosyncrasy.

Severe chorea in a boy aged 13.—On October 11, 1892, three doses of 5 grains were given without bad effect, and then the amount was rapidly increased. On October 13 he had 30 grains; on the 15th 45 grains; on the 17th 60 grains, and so on, until November 14 he was taking 50 grains thrice daily. He was about a fortnight under treatment before the symptoms began to abate. From that time improvement was continuous. He was well on November 25, when he left the Western Infirmary (Glasgow). He was to diminish the dose very gradually, and up to December 6 he remained perfectly well.

Other cases are recorded, but there is no statement in the paper of the result after absolute cessation of the antipyrin.

[Dr. McCall Anderson has since informed me by letter in answer to my inquiries as follows:—

'I have treated a good many cases . . . in the same way and with the same success. The patients remained well for many weeks after cessation of the treatment, but I have not been able to follow them for any lengthened period of time. It is well to continue the treatment in decreasing doses for some weeks after all traces of chorea have disappeared.'—Ed.]

Dangers of naphthol as an application to the skin.—Baatz (*Sem. Méd.* October 24, 1894) has seen acute nephritis follow friction with an ointment containing 2 per cent. of naphthol beta in two brothers, aged 6 and 8 respectively. The remedy was applied for scabies. This was cured, but three weeks afterwards albuminuria with œdema of the lower limbs came on. One of the boys died, and the diagnosis of nephritis was verified by *post-mortem* examination. In neither case had albuminuria previously existed, nor was there any history of an affection which could have been the starting-point of nephritis. The author therefore warns against the use of naphthol beta as a remedy for scabies, in spite of the powerful curative effect which it has on that disease.—*Brit. Med. Jour.* Dec. 29, 1894.

PRESCRIPTIONS

FOR ACNE VULGARIS

1. ℞ Naphthol . . . . 10 parts
   Vaseline,
   Saponis viridis, aa . . . 20 parts
   Sulphur precip. . . . 50 parts
   M. et fiat pasta.
2. Camphor trit.,
   Vaseline, aa . . . . 10 parts
   Pulv. cretæ albæ . . . 5 parts
   Saponis viridis . . . 15 parts
   Sulphur precip. . . . 50 parts
   M. et fiat pasta.
3. Resorcin,
   Amylis puri, aa . . . 5 parts
   Vaseline . . . . . 15 parts
   Zinci oxidi . . . . . 5 parts
   M. et fiat pasta.

These pastes can be applied until inflammation follows, or can be washed off in a quarter to half an hour, and can be followed by powders.

The first two are best used in the latter manner, the third is milder for the mildest form of acne.

Where single pustules are found, the following wash is used:—

Acid. acet. conc.,
Tinct. benzoes,
Spt. camphoræ, aa . . . 6 parts
Spirit. q.s. ad 100 parts. M.
Sig. Apply with sponge night and morning.

('The Therapeutic Gazette,' Philadelphia.)

New Apparatus

By the EDITOR

THE TOE POST

Boots to correct distortion of the great toe.—One of the most prevalent distortions to which civilised humanity is liable is Hallux Valgus—or, in other words, the bending

[1] *Münch. med. Woch.* Nov. 13, 1894.

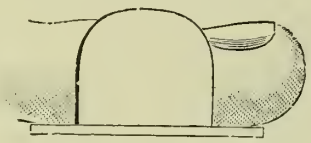
[2] *British Medical Journal*, December 1, 1894.

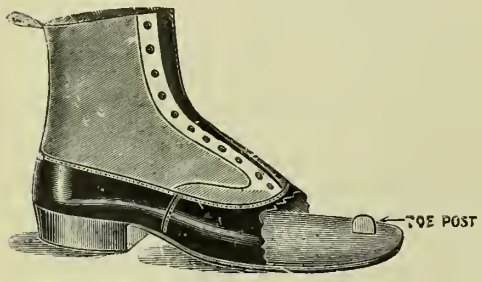
of the great toe towards the others. The associated evils of bunions and corns are very troublesome affections, and the deformity is not easy to cure surgically. The shape of the boot is a matter of great importance, and the necessity of a straight inner side to the boot has been frequently urged.

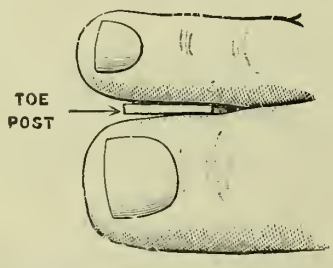
The form of sole which I have elsewhere advocated will, in many instances, allow the toe to assume its natural position. It is not necessary to have a great width at the toes of the boot if the foot is not very broad, so that the very ugly form of boot commonly made for this affection is not necessary.

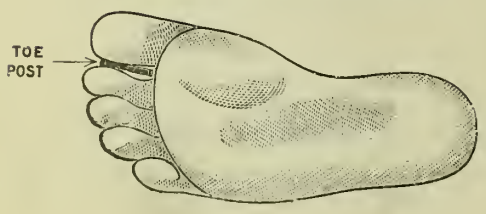
The length of the boots is a matter of very great importance. They should be at least half an inch longer than the ordinary bootmaker thinks necessary. Sometimes we meet with contractions holding the toe in its false position, and such cases, of course, require operation before the toe can be released.

The latest invention is a toe-post, of which we give illustrations below. The boots are made by Messrs. Holden Bros., 223½ Regent Street.









The **toe-post** is a vertical steel plate, leather-covered, inside the shoe, having for its duty the pressing back of the big toe into its true line. The **toe-post** is said to be valuable in the cure of bunions, corns, stiff toe-joints, overlapping toes, hammer toes, paralysed toes, gout, and rheumatic gout.

It is necessary to have socks or stockings with a separate department for the great toe.

Ingrowing great-toenail.—This affection may also be caused by crowding the toes together in badly shaped boots, but Dr. E. H. Root, of the Chicago Hospital for Women and Children, writes to the 'New York Medical Journal' (Dec. 1, 1894), recording a case in a new-born child, and another in a patient who had been bedridden from paraplegia for over a year—the nail having begun to grow in during that time.

Many and severe are the remedies which have been devised for this trouble; but nothing will be found more effective, and at the same time more simple, than periodical cutting away, with scissors, the part of the nail which projects into the flesh. This may be effected without giving the patient any severe pain, and a little moist soap plastered on the part will ease any discomfort which may be left.

Prehensile feet among the Japanese.—When the feet have perfect freedom of action, that is when boots are not used, we find an absence of the above-named disorders, and great power over the movements of the feet follows. 'The art of "getting there with both feet," which Japan has been illustrating in her treatment of China, seems to be a natural endowment,' says the 'Journal of the American Medical Association.' 'M. Michaut, the anthropologist, who has been investigating the subject, finds that the Japanese have marvellous address in the use of their feet as means of prehension. These members possess extraordinary mobility; the first metatarsal bone is separated from the second by an interval which may measure from eighteen to twenty millimetres, and the ball of the great toe may be made to touch the two adjoining toes. The Japanese rest on their knees, the feet in forced extension lying on the dorsum inclined inward and crossed one on the other, thus forming a little bench on which the pelvis rests. All the Annamites—the Cochin Chinese, the Tonkinese, and the Annamites properly so called—also have a

remarkable separation of the great toe amounting to from three to five millimetres, and prehension also is possible. This cannot be attributed to their foot-wear, as might be the case with the Japanese, since the Annamites either go barefoot or wear sandals; nor to adaptation to environment, because they are inhabitants of the plains. History tells us of the kingdom of Giao-Chil, or the people of the "bifurcated toes," who presented this ethnic peculiarity of widely separated great toes in its maximum degree, and examples are still met with—in some families the anomaly being hereditary, and descending usually from father to son.'—*New York Med. Jour.*, Dec. 1, 1894.

THE 'HERCULES' HORSE-ACTION SADDLE

Messrs. Vigor & Co., of 21 Baker Street, have introduced their patent exercising saddle, mounted on a dummy horse, for the use of those persons who, having been recommended by their medical advisers to take horse exercise, are unable to do so, either because they cannot afford it, or for other reasons.

The owners claim for their invention that its action or rather the action produced by the efforts of the 'rider'—closely simulate the movements of the horse. The apparatus can be so arranged that the movements represent galloping, trotting, or cantering.

After trying this machine, I formulated the following remarks.

When the farmer competed with the Italian actor in imitating the squeaking of a small pig, the audience applauded the actor and hissed the farmer. The actor's imitation was artificial, the farmer's representation was produced by a real pig concealed beneath his smock. Upon

the same principle, I hope the public will applaud and use the 'Hercules' horse, and consider him even more like what a horse should be than the real animal, because there can be no doubt the exercise will be beneficial.

Having personally put this artificial horse through his paces, I have come to the conclusion that by working hard the rider may obtain a thorough stirring up of his liver, and get good general exercise of his body; and if he is not

much of a horseman, and can imagine a good deal, he may succeed in persuading himself that he is taking horse exercise.

For myself, I would rather walk, but this is a purely personal view of the subject, and I have no hesitation in recommending the 'Hercules' horse-action saddle as an excellent substitute for real riding when the latter is unattainable.

Veterinary Notes

Almost every medical practitioner living in the country is interested, more or less, in horses and their ailments; and we have therefore thought that some remarks upon the more common mishaps of the stable will be acceptable.

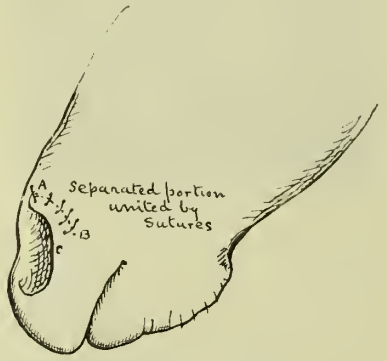
A torn nostril.—It is not an uncommon accident for a horse to tear his nostril open by getting it caught either on a nail or other prominent object. The ordinary spring hook which is attached to the rack chain is the most frequent cause of this accident, the spring getting broken and leaving the point of the hook exposed. This chain not being used at night, but being left loose in the manger, the horse frequently plays with it, and hence the mischief.

The figure below shows a case of this kind which happened some weeks ago. The part from A to B was completely separated, as shown by the dotted line, and the detached portion hung down, being left attached from B to C. The parts were sewed together within fifteen minutes

of the accident, and the wound was kept as aseptic as was thought practicable by means of a solution of carbolic acid, applied on lint and retained by a bandage.

It may seem to the reader a very simple matter to carry this out with success, but the writer is informed by Mr. William Reekie, M.R.C.V.S., that not more than sixty per cent. of these cases unite by first intention, even when sewed together immediately after the accident, and that if the union does not take place at once, it has generally been found useless to do anything else than cut off the partly detached piece.

In the instance we refer to union did not take place by first intention, and four days later, when the stitches were removed, the parts came asunder; thereupon the edges were refreshed, a thin slice being taken off the whole wounded surface, both above and below, and the parts very carefully brought together by sutures transfixing the whole thickness of the cut surface, both above and below, as shown in the figure.



Muzzle of Horse

The parts were kept aseptic by applications of carbolic acid solution (1 in 40), as in the first instance. By keeping the head of the horse tied up, and by feeding with corn only and by hand, for three days, the result has been perfect union.

The difficulties of dealing with this accident to a horse depend upon the constant movement of the part, and the contamination of the wound by dust and dirt. This is best obviated by turning him round in the stall, and not allowing him to lie down until we are sure that union between the edges has taken place. When lying down the horse frequently moves his nose amongst his bedding, and this disturbs the wound. When feeding by the hand is impracticable, a plain manger—*i.e.* one without sides—is advisable.

THE TREATMENT OF INFLUENZA IN HORSES

By WILLIAM REEKIE, M.R.C.V.S.

Influenza *per se* is a very simple disease to treat. Being a specific fever it runs a distinct and regular course. All that is wanted in a simple case is a good roomy loose box, and plenty of clothing and good nursing. Medicinally, for an average-sized hunter or carriage horse, a draught composed of Magnes. Sulph. ℥ij and Spiritus Ætheris Nit. ℥j given daily, and Potass. Nit. ℥j put in a pail of drinking water are all that is required. Except under very favourable conditions, the disease may assume a complicated form, the lungs being involved in the affection.

A few years ago, when this disease was so prevalent in London, I treated nearly two hundred cases, and the draught I found most successful was the following:—

Liq. Ammon. Acetatis Fort.	℥ss.
Potass. Nitras	ʒiij.
Spt. Æther. Nit.	ʒvj.
Ammon. Carb.	ʒss.
Aqua ad	℥xx.

Ft. haust. bis die.

The carbonate of ammonia should be added at the time of giving the draught, otherwise it loses its effect. When there is œdema of the legs, Ext. Belladon. gr. xx may be added with most beneficial results. As an experiment I gave the above draught to several dropsical cases, omitting the belladonna, but the result was not satisfactory. In another experiment I found that the addition of Liq. Strych. ʒij to the above draught was of great benefit when the disease had been in progress four or five days.

In almost all the cases there was constipation of the bowels, which was relieved by Epsom salts. When the lungs became involved hot cloths to the sides, and sometimes mustard, gave great relief. In the after treatment I found Acid. Nitrohydrochlor. dil. ʒiij, with Tinct. Nucis Vomicæ ʒvj, for the first three or four days of convalescence, better than putting the patient immediately on the iron compounds.

Health and Holiday Resorts

SIDMOUTH

Sidmouth is on the south coast of Devonshire, about ten miles N.E. of Exmouth, and twenty-four miles S.S.W. of Taunton.

The aspect towards the sea is due south, and it is protected from the land side by a half-circle of hills about 500 feet in height. It is supposed that the situation of the hills, acting as conductors to the clouds in carrying them off from the town, is accountable for the small rainfall which takes place at Sidmouth, as compared with the immediate neighbourhood and the average for Devonshire.

The remarkable warmth of the place is also attributed to these hills, which, in conjunction with the sea, reflect the rays of the sun upon the town.

In a brightly written 'Guide to Sidmouth,' by Dr. Leonard Williams and Mr. Neil Macvean, M.A., it is stated that the climate is remarkably equable, a fact that may be gauged in a very striking manner almost any day in winter when there is snow about, by mounting the hill which divides Sidmouth from Honiton. Under such circumstances the valley of the latter will almost certainly be found quite white, whilst that of the former will remain green. 'The proximity of the town to the sea, and its exposure to the same on its southern aspect, have, of course, the double effect of increasing the temperature during the winter months and of decreasing it during the summer. The sea likewise affects the atmosphere of the place, reducing the carbonic acid to vanishing point, and increasing proportionately the ozone, iodine, and bromine. The conformation of the district is probably responsible for the fact that even on the brightest day in summer there is always a breeze from the sea. As the surrounding hills become warmed, the air is attracted from the sea. This accounts partly for the comparatively low summer temperature and the freshness of the atmosphere which characterise the place.'

The subsoil is gravel. The hills on either side consist of red marl, those on the west being surmounted by the green sand.

Climate.—Although it has been termed the English Riviera, those who advocate the claims of Sidmouth do not pretend that it is in any way equal to such places as San Remo or Hyères, but that it is one of the nearest resemblances of any town in England to the more favoured health resorts on the Mediterranean.

The meteorological reports show Sidmouth to be a few degrees warmer in winter and somewhat cooler in summer than any other place in England. The humidity is considerable. The records during the last four years show that here the amount of sunshine during the winter has exceeded the average for the south coast in each year, and very materially exceeded it in 1891 and 1893.

As a health resort.—The class of cases for which Sidmouth is beneficial are especially chest affections, particularly asthma, bronchitis, and phthisis. The forms of asthma to which the climate is most beneficial are those which are termed the mixed catarrhal forms, especially bronchitic asthma.

SIDMOUTH, FROM THE EAST CLIFF

W. Bray, Photographer, Sidmouth

It is also recommended for convalescents of all kinds who require the advantages of a warm climate and the tonic effects of sea air, because, although there is much humidity, it is not considered so depressing as many other humid places.

With regard to this subject of humidity, it is necessary to state that in Sidmouth the large amount of sunshine is said to dissipate the moisture very rapidly. We point this out because this part of the country has a reputation for being a relaxing climate, whereas it seems that such is not the case at Sidmouth.

Water supply.—Excellent water is obtained from the green sand which exists at a height of 350 to 400 feet above the sea level, above an impervious red marl, below which is Trias, or New Red Sandstone, on the western side of the valley in which Sidmouth is situated.

The supply is very good, being pure and soft, and the slight turbidity which used to be complained of has been entirely removed by the use of a new water-supply from the rock-marl and its mixture with the old supply.

Amusements.—There is good provision for golf, cricket, tennis, archery, croquet, and other sports. Fox-hunting is to be obtained in the immediate neighbourhood. The town is provided with two bands, and there are a club-house, concert-hall, and theatre.

Baths.—Public baths are now being erected, including brine and other baths for treatment of diseases as carried out at Bath, Buxton, Harrogate, and other English and Continental Spas.

SIDMOUTH, FROM THE SANDS, LOOKING EASTWARD

Train service.—The train service between London and Sidmouth has been much improved of late. Express trains, doing the journey each way in 4¼ hours, run daily, and a special express leaves Sidmouth on Mondays at 7.35 A.M., reaching Waterloo at noon.

Hotels.—There are three first-class hotels: 'The Knowle,' 'The Bedford,' and 'The York,' at all of which the terms are said to be moderate.

Drainage.—The drainage of the town was remodelled some years since. The new sewer was at first ventilated by manholes at the road level, and consequently unpleasant smells used to be emitted. This has now been completely remedied by the channelling of the manholes, and by the substitution, in many cases, of shaft ventilators for those at the road level, and there are several flushing tanks.

The Nurses' Column

THE SKILLED NURSE

By HONNOR MORTEN

Author of 'How to become a Nurse' &c.

The district nurse.—The deterioration of the district nurse is going on apace, and only the protest of the medical profession can arrest it. In country parishes there is a cry for nurses, but also a cry for cheapness; and the 80*l.* a year necessary to maintain a fully qualified nurse is thought too much. Therefore it comes about that ill-educated country girls—generally chosen because they are orphans, or not strong, or not clever—are sent for six weeks to some lying-in hospital, and are then set up in their native villages as district nurses, and supported by the clergy and the county.

I hope they will not have the support of medical men. Let the parish doctor, at least, protest, and point out that the only person who can rightly claim the title of 'nurse' is a woman of education who has spent at least one year, and preferably three years, in the ward of a large hospital where there is a recognised Nurses' Training School.

Asylum nurses.—Why should not attendants in asylums be trained as nurses in hospitals are? The means are simple; lectures and classes might be given by the medical staff, and ward instruction by the matron, who should herself be a hospital-trained nurse. The course should last for three years, and those who pass a satisfactory examination at the end of it should receive a certificate. The Medico-Psychological Association has done good work in starting examinations and certificates for attendants, but the subject wants extending—wants wider publicity. The medical superintendent cannot make good attendants out of bad material, and until general interest is aroused the young ladies who overcrowd the hospitals will scorn the asylums. Yet nowhere are education, refinement, tact, and skill more necessary than in the nursing of cases of mental disorder; no wider or better scope for women's every power could possibly be found than in dealing with mental cases, whether in private work or in asylums.

The certification of midwives.—The Council of the Midwives' Institute has passed a resolution to the effect that it is of the utmost importance that in any certificate issued to midwives the simple word 'midwife' should be retained.

The action of the General Medical Council with regard to the diplomas issued by the London Obstetrical Society and other bodies has caused great disquietude in lying-in hospitals, and while quite agreeing that smaller certificates would be more suitable, yet I think we should prevent any confusion between the work of the midwife, competent to attend natural labour, and the monthly nurse.

For twenty years the Obstetrical Society has done good work in raising the status and improving the training of midwives, and I think it would be detrimental to further progress, and even retrograde in its action, if any great check were to be placed upon their efforts.

Certainly the word 'diploma' might be changed to 'certificate,' and the size of the certificate should be smaller, and the seal might be left out; but it would be unfortunate if the Society were to cease to examine midwives and give them some document to show their efficiency. There will always be midwives, and therefore it is better they should be trained than untrained; and if any title such as 'obstetrical nurse' were substituted for the one now in use, the result would be confusion, and monthly nurses might consider themselves equal to attending natural labours. So I hope we shall retain the good old English word 'midwife.'

Reviews

In reviewing works it is proposed to give, as far as practicable, examples of the author's writing, which may not only show the character of the work, but which may prove of some clinical use to the reader.

Tumours, Innocent and Malignant: their Clinical Characters and Appropriate Treatment. By J. Bland Sutton, F.R.C.S., Assistant-Surgeon to the Middlesex Hospital. (Cassell & Co., 1894. 8vo, with 250 Engravings and 9 Plates, 21*s.*)

Surgical Diseases of the Ovaries and Fallopian Tubes. By the same author. (With 119 Engravings and 5 Coloured Plates. 12*s.* 6*d.*)

Mr. Bland Sutton is so well known, not only as a scientific observer but also as a reliable and original worker, that any book which is published in his name will always be accepted with confidence; so that it is hardly necessary to give an extended review of the above works. They are both well written, logical, thorough, full of interest, and well illustrated.

TUMOURS, INNOCENT AND MALIGNANT

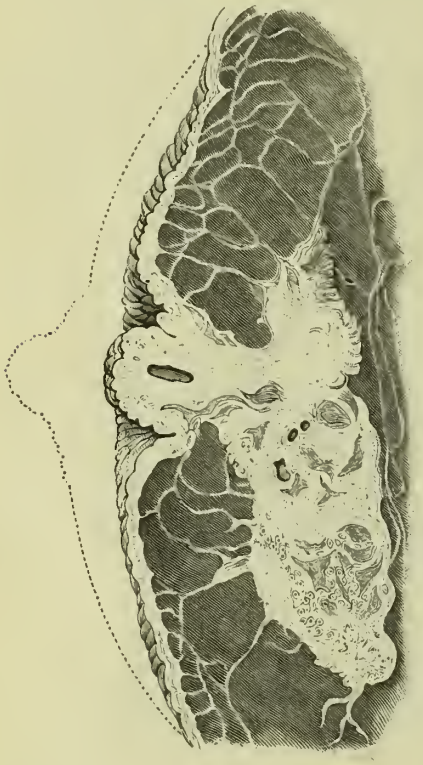
Mr. Sutton has been collecting materials for this work since 1885, and the results of his investigation into the matter of cysts were embodied in his Hunterian and Erasmus Wilson Lectures, delivered at the Royal College of Surgeons during the years 1886–9 and 1890–91.

In his description of cancer he has departed from the beaten track. The terms scirrhus, colloid, medullary or encephaloid, have, he considers, dominated the minds of surgeons and hindered progress long enough. The term 'cancer' is employed in a sense equivalent to malignant adenoma, the species being determined by the gland in which the cancer arises. The illustration which we give below is a good example of the many excellent figures which adorn this book. It shows remarkably well the appearance of a retracted nipple.

Carcinomata.—It is stated (p. 222) that there are two varieties of mammary cancer—namely, *acinous* cancer and *duct* cancer.

(1) '*Acinous carcinoma.*—This variety presents much histological diversity, which has led to great confusion in surgical writings. In the most typical form it occurs as a solitary hard tumour (so hard as to obtain the name of scirrhous cancer), situated at the base of the nipple; but it may occur at any part of the gland, even at its periphery.

When the tumour is near the areola, it will often induce retraction of the nipple; when situated in other parts of the breast, it will lead to dimpling and puckering of the overlying skin. . . . The tumour has no capsule, and fades away indefinitely into the surrounding tissues. When the parts beyond the tumour are examined, isolated collections of cells will often be detected.



Cancer of Breast

The dotted line indicates the extent to which the nipple and areola have retracted.

(*Sutton on Tumours*, fig. 107.)

'In other cases the tumour will be only moderately firm, and on section exhibit a succulent appearance. When microscopically examined it presents alveolar spaces lined with epithelium, here and there raised into irregularly shaped heaps. Such cases are difficult to distinguish from adenomata; but when the sections are attentively examined, parts will be found in which the alveoli are completely filled with irregularly shaped epithelial cells.

'In many examples of mammary cancer the tumour, when bisected, appears to the naked eye merely like a tract of cicatricial tissue, and feels as hard as cartilage; when examined microscopically, it will be found to consist of strands of fibrous tissue enclosing here and there a few epithelial cells. This variety is sometimes spoken of as 'withering' or contracting scirrhus; it runs a much slower course than the preceding kinds, and gradually, by its contraction, causes the gland to shrivel, so that at length the patient presents an appearance as if the breast had been removed. Some of these cases have been known to last ten and even fifteen years.'

SURGICAL DISEASES OF THE OVARIES AND FALLOPIAN TUBES

This book is largely based upon personal investigation; but, at the same time, full justice is done to the original work of other surgeons. As in the work on tumours, comparative pathology has been brought to bear in elucidating the nature of the subjects dealt with, and especially as regards hydrocele, and in relation with menstruation and tubal pregnancy.

In respect to the pathology of extra-uterine pregnancy, Mr. Sutton states in his preface his belief that 'the time is not far distant when even teachers of midwifery will wonder how they could ever have believed that an impregnated ovum would grow upon the peritoneum.'

On page 31, upon the subject of tubo-uterine gestation, the author refers to this condition as differing in its course from the purely tubal form. He goes on to state that 'the occurrence of tubo-uterine gestation admits of no doubt whatever, and fortunately a few specimens exist of this accident which demonstrate its absolute independence of cornual pregnancy. Two specimens, one preserved in the museum of Guy's Hospital, and the other, which has had the advantage of careful investigation by Doran, in the museum of the Royal College of Surgeons, are the most satisfactory and easily accessible examples in London.'

The specimen from Guy's Hospital is described in the Reports of the Hospital by Dr. Braxton Hicks.

The dissection is thus recorded: 'Uterus enlarged to six inches long, and three and a half to four inches in diameter in its widest part. A ragged rupture appeared on the fundus, rather towards the left side, from which blood had poured. The uterine walls had increased in thickness to about an inch and one-eighth at the widest part.

'A cavity about three inches in diameter (when collapsed) was situated in the substance of the wall of the fundus, adjoining the left Fallopian tube. This cavity had extended the walls externally so as to be apparent there, and had also encroached on the cavity of the uterus, on the left side of the fundus. The walls of the cavity all round were formed of uterine tissue. The wall separating it from the uterine cavity was about one-sixth of an inch in thickness. An examination of the specimen shows that the cavity of the gestation sac is directly continuous with the tube. The walls of the sac bulge into the uterine cavity, which is lined by thick decidua.'

This abstract will give an idea of the style of the book, a work which is indispensable to anyone wishing to acquaint himself with the most modern views upon diseases of the ovaries and Fallopian tubes.

INDEX OF MEDICINE

Index of Medicine: a Manual for the use of Senior Students and Others. By Seymour Taylor, M.D., M.R.C.P., Senior Assistant-Physician to the West London Hospital. (London: Smith, Elder, & Co., 1894. Crown 8vo, pp. 794, 12*s*. 6*d*.)

This work purports to be a handy manual for students preparing for their final examination in medicine at the various Examining Boards; and is not to be considered as a text-book, but as a supplement to the larger treatises on medicine in general use.

The book will nevertheless, unless we are much mistaken, prove of considerable value, not only within the restricted sphere for which Dr. S. Taylor modestly assigns its *rôle*, but also to practitioners, especially those for whom conciseness and reliability are matters of moment.

There is the usual subdivision of each subject under various side-headings, such as 'definition,' 'causation,' 'pathology,' 'symptoms and physical signs,' 'complications,' 'diagnosis,' 'prognosis,' and 'treatment,' which renders it possible to discover easily information that may be required, if such be contained within its scope. A full index also assists in the same direction.

Let us take, however, one branch of the book for closer examination, and select—as we did by accident—that on diseases of the respiratory system, which occupies eighty-four pages. The author describes, first, the medical anatomy of the trachea, thorax, bronchi, lungs, and mediastina; then follows a subdivision on physical examination of the lungs by inspection, palpation, percussion, auscultation, and mensuration, together with a table of physical signs and their association with different morbid states. Next succeed chapters on diseases of the larynx and trachea, the bronchi, the lungs, and the pleura.

The treatment recommended appears to be that which has the sanction of the best British medical authorities of the day, and it is described in fairly full detail. There is a commendable absence of padding; the language employed is concise and definite; and the proof sheets have evidently been well and carefully revised. Altogether, Dr. S. Taylor may be congratulated on the production of an excellent work, well suited to its avowed purpose.

THEORY AND PRACTICE OF MEDICINE

Theory and Practice of Medicine. By Frederick T. Roberts, M.D., B.Sc., F.R.C.P. 9th Edition. (H. K. Lewis, 1894. Royal 8vo, pp. 1184, 21*s*.)

This work is so well known that it is almost sufficient to say of the ninth edition that it retains the position that it has always held. The contents have been carefully revised, and many parts rewritten; and the general arrangement has been somewhat modified. Bacteriology has received special consideration, and new sections have been written dealing with the general therapeutics of the principal systems and organs of the body.

The treatment of diphtheria by antitoxin serum had not attained to notoriety when this edition was written, and so there is no mention of it; but the description of the Klebs-Löffler bacillus is, perhaps, sufficient for the purpose of the work.

As an example of the cautious statements made, which are so desirable in a standard work of this kind, we may mention the following. In dealing with myxœdema, the author, in referring to the internal administration of preparations of the thyroid gland, mentions the very satisfactory results which have been met with, 'but, as yet,' he adds, 'no definite statements can be made as to the permanence or otherwise of the beneficial effects so obtained.' He refers to this therapeutic agent as being a powerful one, and to the unpleasant effects which sometimes follow its use, such as palpitation, giddiness, pyrexia, depression, and dyspnœa.

The author is to be congratulated upon the general practical character of his work; nothing being more difficult than to do justice to the many subjects to be dealt with in the compass of such a handbook.

We have no wish to cavil with small omissions, which are inevitable, but the following seems to us to need correction in the next edition. In dealing with Spasmodic Torticollis, the affection is described very well; but, in the present state of our knowledge of the result of surgical treatment, we cannot consider the statement satisfactory that 'this affection is generally incurable after it has become well marked.' No mention whatever is made of operation upon the spinal accessory or posterior cervical nerves, although in other parts of the work the author has not omitted to refer to surgical help in the treatment of disease.

The volume is well got up, is not too bulky for frequent use, and fulfils excellently the purpose of a practical handbook of medicine.

THE ARTIFICIAL FEEDING OF INFANTS

The Artificial Feeding of Infants: the Properties of Artificial Foods, and the Diseases which arise from Faults of Diet in Early Life. By W. B. Cheadle, M.A., M.D., Physician to St. Mary's Hospital. 3rd Edit. revised and enlarged. (Smith, Elder, & Co. 5*s*.)

The third edition contains further material upon this important subject; and these additions are chiefly in connection with the quality of cow's milk and its preparations; the effect of various diluents upon it; the giving of peptonised and pancreatised foods; and the influence of

their prolonged use on the development of the scorbutic state.

If space permitted we should like to give long extracts from this excellent little book, as they are essentially of that practical character which we wish to attain in the columns of this Journal. There are few physicians who have given so much attention to this subject as Dr. Cheadle, and the able help which he has received from Dr. Luff is fully recognised by him. Mr. Arthur Savory and Mr. Elkin have also helped in the construction of this volume.

The title of the work expresses fully what the contents are, and every practitioner ought to feel indebted to Dr. Cheadle for having supplied them with such an excellent reference book upon this subject of infants' diet.

The sterilisation of milk is a matter which is recognised in the present day as one of great importance.

Dr. Cheadle writes definitely and plainly. He lays down as a rule that in all cases where the milk supply is not private, and its conditions not fully known, all milk for use in the nursery should be boiled immediately upon its arrival in the house.

The various forms of apparatus which have been devised by Soxhlet and others, either by immersion in boiling water, or by exposure to steam, and its preservation in hermetically sealed vessels, are referred to ; but objections are raised to these methods, and it is stated that boiling for a few minutes is necessary and is sufficient for ordinary purposes. The objections to boiled milk are not serious. If a child is fed upon it from the first, he will take to it kindly, and should it cause constipation this can be easily counteracted by the addition of a small quantity of fluid magnesia or carbonate of magnesia to each bottle, and, later, by the addition of some food which is laxative, as a malted food, for example. By this means we prevent the contamination of the infant (through milk) by tuberculosis, typhoid, scarlatina, and diphtheria.

Boiled milk is certainly not so palatable as that which is only heated, and we conceive it quite possible that boiling interferes to some extent with its nutritive value; therefore it is satisfactory to know that disease germs may be destroyed without raising the temperature quite so high.

Dr. Sims Woodhead assures us from quite recent experiments that all that is necessary is to put an ordinary pitcher covered at the top with a saucer into a pan of hot water which should be above the level of the milk to be sterilised. Allow the water to boil for half an hour, and at the end of that time the temperature of the milk should have been at from 90° to 92° C. (about 197° F.) for about ten or twelve minutes.

The temperature of the milk very seldom rises beyond this, so that it never actually boils.

'Such treatment kills all disease germs,' says Dr. Sims Woodhead, 'including necessarily those of typhoid, tubercle, and diphtheria; and if the milk is allowed to stand for several hours after, without being uncovered, it will have very little of the boiled-milk taste to which so many people object.'

Dr. Woodhead's full report upon these experiments will be published before long, and he has very kindly supplied us with this information in advance.

A SYRINGE FOR INJECTING ANTITOXIN SERUM, COMBINING A VALUABLE NEW INVENTION.

Messrs. Wright & Co., of New Bond Street, have just brought out a hypodermic syringe, to hold five drachms, for antitoxin serum and other purposes. It is made of glass and metal, nickel plated, and the various parts are easily detached from one another for sterilising purposes. A very valuable new invention is added to this syringe, its purpose being to regulate the size of the piston. We have most of us experienced the trouble which arises from the piston shrinking and failing to fit the syringe accurately. By means of a sliding cylinder over the piston rod, the circumference of the piston can be increased by pressure from above, or relaxed by removing that pressure, and so a perfect fit can be insured. The piston is packed with asbestos.

For proposed contents of the next issue, see p. xvii.

For tables of Metric System, Thermometric Scales, &c., see p. xix.

PROPOSED CONTENTS OF "CLINICAL SKETCHES"

FOR

FORTHCOMING ISSUES.

ORIGINAL PAPERS

BY

J. W. HULKE, F.R.S., P.R.C.S.

JONATHAN HUTCHISON, F.R.S. (Illustrated.)

BLAND SUTTON, F.R.C.S. (Illustrated.)

BUCKSTON BROWNE, F.R.C.S. (Illustrated.)

PRIDGIN TEALE, F.R.C.S. (Illustrated.)

BEZLY THORNE, M.D.

AND OTHERS.

THE FOLLOWING SUBJECTS WILL BE DEALT WITH:—

INFLUENCE OF URIC ACID IN THE BLOOD.

PUERPERAL SEPTICÆMIA.

THE PATHOLOGICAL MUSEUM.

THE USEFULNESS OF MEDICAL ILLUSTRATIONS.

FULL PAGE ILLUSTRATIONS OF MEDICAL CELEBRITIES &c.

HEALTH RESORTS.

HUNTING ACCIDENTS.

VETERINARY NOTES.

PARTURIENT WOMEN UNDER THE POOR LAW ADMINISTRATION.

TABLES OF COMPARATIVE WEIGHTS AND MEASURES, ETC.

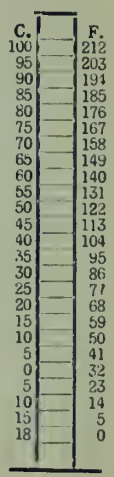
Measures of Length (Unit Mètre).

Equal to	Inches	Feet	Yards	Fathoms	Miles
Millimètre	0·03937	0·003	0·001	0·000	0·000
Centimètre	0·39371	0·032	0·010	0·005	0·000
Décimètre	3·93708	0·328	0·109	0·054	0·000
Mètre..	39·37079	3·280	1·093	0·546	0·000
Décamètre	393·70790	32·808	10·936	5·468	0·006
Hectomètre	3937·07900	328·089	109·363	54·681	0·062
Kilomètre	39370·79000	3280·899	1093·633	546·816	0·621
Myriamètre	393707·90000	32808·991	10936·330	5468·165	6·213

Measures of Weight (Unit Gramme).

Equal to	Grains	Troy Oz.	Avoir. Lb.	Cwt.= 112 Lb.	Tons= 20 Cwt.
Milligramme	0·01543	0·000	0·000	0·000	0·000
Centigramme.. ..	0·15432	0·000	0·000	0·000	0·000
Décigramme	1·54323	0·003	0·000	0·000	0·000
Gramme	15·43235	0·032	0·002	0·000	0·000
Décagramme	154·32349	0·321	0·022	0·000	0·000
Hectogramme ..	1543·23488	3·215	0·220	0·001	0·000
Kilogramme	15432·34880	32·150	2·204	0·019	0·000
Myriagramme ..	154323·48800	321·507	22·046	0·196	0·009

COMPARISON OF CENTIGRADE AND FAHRENHEIT THERMOMETRIC SCALES.



To convert degrees F. into degrees C. deduct 32, multiply by 5, and divide by 9.

To convert degrees C. into degrees F. multiply by 9, divide by 5, and add 32 to the result.

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